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AMERICAN AGRICULTURIST

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What Do Farmers Need Most?

Is It Leadership, Business Ability, System, or Confidence in the Future?

PERSONALLY I think we farmers are fools and that I, being one, have a host of companions.

This is a dairy section with about three hundred farmers contributory. Possibly three dairymen, or 1 per cent of the numbers, are making any money at all. Cows, cows, cows everywhere. Most of them are eating their heads off—a majority of them not paying their owners one cent profit for the year, just eating good hay, excellent silage and forty dollar grain.

One of the most successful cheese makers in this whole section has often told me that the dairy farmer should reduce his dairy to where each cow would give at least 7,000 lbs. of milk per year or ten months lactation period. This man is rich. He has no ax to grind. In addition he states that the dairy farmer should stop buying fancy mixed, high protien feeds at from $35 to $50 per ton.

One of the best feed men in this county tells me that the farmer is a simpleton when he buys high-priced feeds for his cows when the price of milk is where it is. In my humble opinion both cheese maker and feed man are correct. We farmers are a queer combination. We believe we are independent. We are not. We believe we are business men. Most of us know absolutely nothing about business.

A merchant in any line knows what his goods of every variety costs to a cent. He adds a fair (or an unfair) profit and sells it to his customers at his price. Do you, my fellow-farmers, know how much it costs to plow an acre of land, to harrow or fit it, to drill it or plant it, to harvest or dig it? Do you know what it costs to put grass seed and clover on one acre or ten, or what it costs to produce a ton of hay or of silage or a bushel of potatoes or a dozen of eggs? No! A vast majority of us do not know and we are too bull-headed to try to learn.

And what is the result? It is this: When we come to market with our products, be they what they may, we are at a great disadvantage. Our question, our national foolish and simple question is: What are you paying now, for pork, wheat, oats, corn and all grains; for potatoes, cabbage, turnips or squash; for milk, butter, cheese, eggs; for hay, straw or fresh June peas? What are you paying now, for my product and for yours? Ye Gods! are we independent? Are we business men?

The average farmer is the back-bone of this United States to-day. The crying need of this doubtful hour for us farmers is *Leaders*. Paid or unpaid men of ability in each town. Leaders that can give blackboard talks on subjects that are directly or indirectly connected with your job and mine. Leaders that will dig into political questions and give us the "straight" of it in an interesting and unbiased way. Leaders that will go into the matter of local costs so that you will and I will know how much it really does cost *locally* to produce a pound of pork or a bushel of beans.

Josh Billings says "No one has ever busted forth into print 'bout how much money they is in farmin' cause they ain't no sech animal." A recent lengthy magazine article states that "there is nothing like an acre of cherries to pay the mortgage on a dairy farmer." Ain't it the truth? I recently "heard" a man say that it was no wonder that most everyone except a farmer was prospering because they had forty million fool farmers to "pick on." Ain't it the truth?

This is written in the interest of farmers everywhere by One of You.—Gouverneur, N. Y.

In the Rut and Out with Legumes

IN the issue of American Agriculturist of October 21, E. H. Burson, Monroe County, N. Y., gives an interesting example of "getting out of the old ruts." In the issue of December 16, H. E. Cox, Monroe County, N. Y. replies in another very able article. Both these articles have a lot of very sound reasoning and deserve the careful reading and study of every American Agriculturist reader.

I really like Mr. Cox's statement which runs as follows: "The old rut or rotation farming has proved in all history to be the foundation of agriculture." Also the statement concerning the "plunger." Plungers rarely get far. We need only look into the many poultry ventures that paid only in the imagination and on paper during the past few years.

I fully agree with Mr. Cox concerning diversified farming. If diversified farming were to be discontinued and every farmer go to specializing, everything in the farming game would go to the dogs in a short time.

Now, permit us to give a little personal experience about getting out of a rut.

Some few years ago it fell to our lot to take charge of a piece of land which had been pretty well run-down. The trouble here was that diversified farming and a certain rotation had been carried too far. In fact, the rotation was so long it became monotonous and crops refused to do any good. We tried the thread-bare rotation of corn-oats-wheat-clover-timothy-timothy-pasture, as practiced by other farmers of this section. A few had already shortened rotations to about five or six years, but it did very little good. We found that we could get no clover started and very little else. We got discouraged and felt like quitting.

About this time our good friend Jake McQueen of Tuscarawas County, Ohio, was boosting soy beans and having vetch as the remedy for land, run-down land like ours. We became interested and paid him a visit at his famous Rigby Farm. This visit led to more and to our trying hairy vetch on our very poorest ground. The results were very satisfactory. Sufficient to say that the hairy vetch was raised for several consecutive seasons on the same ground with the result that we followed it with a bumper crop of mammoth clover in 1919. Besides this we raised soy beans for both seed and hay with results that made others stop and take notice. This experience alone would make a large article itself. Beginning with 1916 we raised soy beans each season except 1921 when we omitted them because of ill health.

Where does the rut come in some may wonder as they read the foregoing? Well, we were in the same rut others were so far as rotations were concerned. We saw that to succeed and to make our ground bring results we had to get out of the rut and change crops. Due to what we learned of the value of legumes in building up soil fertility, we adopted a four-year rotation as follows: corn and soy beans—soy beans or oats depending on soil—hairy vetch and rye or wheat, depending on soil—clover and timothy. This followed for a few years brought us out of the rut and brought the soil to a much higher state of fertility. One of the best crops of wheat we ever raised followed soy beans on a piece of ground that brought no good pastures before soy beans were raised on it for two successive seasons—first with corn and next for hay. We might write indefinitely of the change and the gratifying results, but it is needless. We have stated the case and the point is quite clear.

To return to Mr. Cox's last paragraph, he is right. If your system is bringing results—be slow to adopt a change. Some ruts are good and profitable ruts. Others spell *loss* and need a radical jerking out of their tracks. I just now recall a statement made to me last spring by my friend McQueen. The question was put to him during the course of an address by him, of what would happen if everybody were to stop raising wheat and oats, and where would bread come from, etc McQueen's reply was short and to the point, as follows: "If everybody accepted Christ as their Saviour, there would be no further work for Billy Sunday and Gypsy Smith and others. Likewise in raising legumes. Not all will change. Not all need to change, but many more would change to legumes."

The way to view the matter is this: If the system and rotation you follow is bringing profitable returns and your soil remains fertile, "go easy" as to a change. If, on the other hand, your system and rotation are spelling loss to you, as it did to us, then make a radical change and do not delay. One thing is needful, however, which is exercising good sound judgment and reasoning power while working the change.—WARNER E. FARVER, Holmes Co., Ohio.

This Is Your Page

FARM people are doing the best and sanest thinking that is being done in America to-day. That is the chief reason why we welcome the large numbers of letters that come to us in every mail. Let them come. We publish all that we have room for, but do not be discouraged if you do not see some of yours in print, for these letters from farm people whether published or not have great influence on the entire editorial policy of this paper. We will not publish your name if you do not wish it, but be sure to sign your letters.

Remember that the letters express all sides of the problem and that we do not necessarily agree with all of the arguments. Remember also that two short letters are better than one long one, and keep in mind the story of Finnegan, the section boss, who insisted on writing too long reports on everything that happened on his section. Finally he got emphatic orders from headquarters that he must boil his reports down, especially on unimportant things. A few days later there was a bad wreck on Finnegan's section, and after things were straightened out he reported to headquarters as follows: "Off agin, on agin, gone agin, Finigin."—THE EDITOR.

Future Must Be Bright

IN a recent issue of American Agriculturist, I noted a request for opinions on the "future of farming." As things look at times, one almost feels that the "future" of farming is like snakes in Ireland—there "ain't" any! However, my husband and I, with two young children, are going on a farm on March 1, after some time working for other farmers, and we have a great deal of faith and hope that farm life is going to offer us some advantages impossible to obtain elsewhere, in return for hard work and inter-

(*Continued on page* 13)

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

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Health Is Fundamental To Happiness

A Strong Body—A Necessary Team-Mate of a Trained Mind

EVERY woman has many reasons for loving and caring for her home. One of the most important of these is that the home is the nest where she cherishes her children until they finally tumble over the edge into the wide world. But little birds become fledglings before they leave the nest forever, and little children become school children before they grow up and found homes of their own. If the mother birds could shoo away every marauding dog and cat and boy while the fledglings were testing their wings, how happy they would be! And yet what small thought human fathers and mothers give to the schools where their children spend a large part of their time.

Health and Happiness! They should be the natural right of every child. The school laws in this country guarantee to our children at least an elementary education, but as one great educator has said "What shall it profit a child if he gain the whole world of knowledge and lose his health?" What can you and *you* and *you* do to help your school give your children and your neighbors' children strong bodies as well as trained minds? Well, there are a great many ways, and the Child Health Organization of America has been helping both city and country mothers to apply them. This organization has proved that children really can be as enthusiastic about health as about games, races, and dolls.

The first step in introducing a health program into your school is to visit the school. It works on the same principle as Aunt Martha's recipe for making squirrel pie:—"First you catch your squirrel!"

Three thousand women throughout New York State have already done this initial thing. To give them an idea of the questions to ask and the conditions to notice, the League of Women Voters gave each visitor a set of questions made out from suggestions of Dr. S. Josephine Baker, the noted child health specialist.

This army of mothers was eager to start out with the survey, because they felt that country children had as much right to good health conditions as those of congested New York City, which Dr. Baker has helped make a safer place for the health of children than many farming communities.

So three thousand women, armed with their list of questions, visited one-third of all the schoolhouses in the State. Some of the schools were in their own district and some in neighboring districts. One woman exclaimed when she inspected the building in her own community, "I taught in this school twenty-seven years ago; it is now, except for a few minor improvements, practically unchanged."

Before the survey began, the school authorities were convinced that the women were really not out to find fault with the schoolroom, but to help make it the best place for their children. The teachers therefore, welcomed their visitors and were happy to answer the questions. For many years they had wanted the mothers and fathers to come to the schoolroom and assist them. Now they saw the beginning of interest on the part of the community.

Checking Up on Health Conditions

Direct questions were asked about all sorts of health precautions. Some examples were: "How often are physical examinations made, and are reports sent to the parents?" "Is there a school nurse and does she visit the children in their homes?" "Are there scales in the school and how often are the children weighed?" "Is the schoolroom clean and who cleans it?"

The women were surprised to find that in a very large proportion of rural schools no physical examination was made. In others, only a very few minutes was given to each child. One teacher confessed that the doctor lifted her pupils and then guessed the weight. In another school the "examination" was made over the telephone. Even in cases of thorough examination, the investigators found, parents sometimes neglected to remedy defects which the doctor reported, and so the doctor naturally thought time had been wasted.

These mothers soon realized that physical handicaps of adult life such as indigestion, deafness, poor eyesight and bad teeth could be overcome through a careful physical examination in the schools and the right kind of follow-up to get rid of the defects that were discovered.

Making Children Want Health

The teaching of good health habits was found to be a new study in many of the schools. This was a problem which puzzled some teachers, who had been told to teach the pupils the names of the muscles and of the teeth, molar, pre-molar and so on, ad infinitum. They were now trying to interest children in health habits such as drinking plenty of milk, cleaning the teeth and going to bed early; but in some rural schools the teacher could not see the value of teaching the importance of washing the hands before eating, for instance, when the schools had no water supply, and during the winter, water could not even be carried from a neighbor's well. On the other hand, in many cases, teachers were making heroic progress against heavy odds in rousing the desire for health among their children.

The answers to the questions obtained by these three thousand women have been published, and any mother or father may obtain a copy through the New York State League of Women Voters, Grand Central

(*Continued on page* 13)

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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Market Service

THE farmer's biggest job is not to grow more, but to get more for what he does grow. American Agriculturist's biggest job is to help farmers to do this. We are, therefore, establishing a special Market Service Department. We do not expect to take the place of cooperative organizations, but we ourselves are a great organization of over 115,000 farmers and we think that we can help.

What are your greatest market difficulties? Are you selling large quantities of eggs? If so, are you getting top prices? How about the hay that you sell off the farm, the veal calf, the butter and the apples?

Our market expert, has been working in New York City's great markets for years. He knows how to get the best results from them. He is at your service and when he needs more help we will add to his staff. Pick out your most difficult marketing problem and tell us all about it, addressing your letter to the Market Service Department of American Agriculturist.

The Need of Better Grading

IN a recent campaign to standardize eggs in Missouri, the United States Department of Agriculture examined 95 carloads, each containing 400 cases with a total of 38,150 dozen. The survey showed that 54 per cent were classed as "No. 2," 26 per cent as "No. 1" and only 5 per cent as "extra." The rest were classed as "dirty," "cracks" and "rots." Were these figures reversed so that at least 50 per cent of the eggs could be classed as "No. 1" it would save the farmers of Missouri over a million dollars. Similar figures could be obtained from any State. The sad fact about it is that the hen does not lay a "rot" nor even a "No. 1." She is satisfied only with an "extra." The responsibility for poor quality eggs rests solely with man. Nor is the loss all apparent in these figures. If the consumer could always be sure of fresh eggs, the increased consumption would bring millions more in returns to poultrymen.

A representative of the New York Department of Farms and Markets told us recently of the large number of mixed crates of chickens that come into the New York market. For instance a crate may often contain Plymouth Rocks, Leghorns and one or two other breeds, with the result that the buyer insists and usually succeeds in buying the whole crate on the basis of the poorer product in the crate—the Leghorn.

These conditions in the poultry market are examples of the big job farmers and farm organizations have yet ahead of them in the better grading and standardization of farm products. After all, an artificial price cannot be long maintained by the best cooperative in the world and the greatest chance of success in the markets by either individuals or organizations is to properly produce and grade high quality products to suit the demands of modern consumers.

More Than Credit Needed

ONE would think to read the newspapers and the resolutions passed at many meetings that if farmers could secure plenty of credit, good times would come a running and all of their problems would be solved.

As a matter of fact, too much credit is a curse for farmers or for anyone else. If it had not been quite so easy, particularly for western farmers, to borrow money during and after the war, they would not be having so much trouble to-day. They obtained credit too easily, paid too high prices for farms, bought too much equipment and too many automobiles, with the result that they could not hope to pay back what they borrowed and many had to lose what they had paid down.

Without doubt, there is need for some kind of a plan that will extend to farmers reasonable credit for long time loans which will enable them to hold products for months and to raise cattle over a period of years. Congressman Sidney Anderson has introduced a bill along this line which we hope will be passed. But let no one fool himself into thinking that credit facilities alone will solve the hard times on the farm.

A Highly Skilled Business

A RECENT press release of the United States Department of Agriculture tells of the work done by the Department during the past year to control the spread of dangerous insects of which the farmers of the past generation never heard. Among these are the Japanese beetle. The Department reports that during the season of 1921, 5,000 of these beetles were removed from the tips of sweet corn in inspecting some 200,000 baskets. Insects injurious to peaches and peach trees are greatly on the increase. It is within the bounds of possibilities that if the European corn borer cannot be controlled, this one insect alone will make it impossible to grow corn with much success in the United States. The citrus growers of Florida and California have to fight constantly dozens of insects. The Mexican bean beetle, the pea aphis, the boll weevil, the gipsy-moth, the pine beetle and the San Jose scale are just a few other insect enemies with which the modern farmer has to contend. He is afflicted with an equally long list of plant and animal diseases and every year sees new weeds establish their sturdy life upon his acres.

Opinion still exists to the effect that should one fail at everything else he can still make a success at farming. There might have been a time when such an opinion was justified. In the early days of farming, soil was rich and there were few plant or animal enemies to prevent abundant harvests. Then, too, because most of the people were farmers and were the largest consumers of their own products there was no marketing problem.

But always, as a country grows old in agriculture, the problems of the farmer increase. To be successful in agriculture to-day, one must be trained either in school or by hard experience, or by both, in not one but several arts and sciences. The proper care of the dairy itself is one of the most complicated and difficult trades in the world. The control of a thousand and one plant and animal diseases of the farm requires the practical knowledge of a highly trained scientist. The knowledge needed to care for and use modern farm machinery makes of every farmer who can do it, a highly trained mechanic. On top of it all farming of this day, with its requirements of intimate knowledge of markets and business practice, demands a business skill which if applied to other business would surely bring higher returns.

As time goes on the problems of production and marketing are likely to increase instead of diminish. This means more hope for those of the coming generation who train themselves both by education and experience in the skilled trade of farming. And it also means that the ignorant, unskilled and unprogressive farmer will find it more and more difficult to make a living from the land.

Get the Taxes Down

THE biggest economic job in this country to-day is to get the taxes down. Every office seeker should be elected on this issue and every public official's record should be measured by this standard. Taxes, especially farm taxes, are too high and those who are saying so much about helping the farmers, can practice some of their preaching by bending every energy to reducing the farmers' tax burden.

Wars always increase taxes. After the American Civil War, taxes were high for years because the war was followed by a period of wasteful expenditure on the part of National and State Governments. Conditions finally became so bad that there was a general demand for reform, which lead to the Civil Service System and to the retirement of those leaders who advocated too large expenditures of public money.

Although the burden of taxes falls heaviest on farmers, the great majority of them are always willing to pay their share to support worthy enterprises or to help win a war. But the war is over and farmers are not willing to pay for useless jobs and unnecessary expenses. It is time for economy, especially in Government expenditures.

The Vision of the Stars

MAY we call especial attention to Mrs. Fountain's poem "The Vision of the Stars," which we are publishing on the opposite page. The poem was read by the author at the recent annual meeting of the Farm Bureau Federation at Syracuse and was received with much applause and favorable comment. We take pleasure in giving it wide circulation among the people for whom it was written.

Mrs. Fountain is herself a farmer's wife, gifted with the unusual ability to describe and express the disappointments, the longings and the hopes of the men and women whose homes dot the thousand lonesome hills and valleys of America. Sorrow will surely come to any nation when bitter poverty and grueling toil shut off from farm people their vision of the stars.

The Vision of the Stars

By Mrs. Cola L. Fountain

SILENT he toils on the homestead farm where his father lived and died,
Keeping his feet in his father's paths with a secret, holy pride,
Around him the hills lie soft and blue and they gently shut him in,
Afar without is the world's fierce rush and its money-maddened din,
And he lives in the quiet of the vale and 'tis pleasant, too, to be
A little King in a little State in his own autocracy.
He knows there are problems to be solved where the hearts of men beat high,
He knows heavy burdens must be borne, but above him curves the sky,
And the bees in the clover drowsily hum, and the fragrant air is warm,
And his work lies here in the sunny fields away from the stress and storm.
Narrow? Yes, true, and content to be as the seasons change and blend,
Busy enlarging his golden hoard—too busy to be a friend.
Yet sometimes there comes—he can't tell how—when the wind sweeps gently along,
Rippling the heads of the hillside wheat—or the birds burst into song,
Something that lifts for a breath his heart and his mind to higher things
Giving him just a fleeting glimpse that even *his* soul has wings,
And he feels, but he wouldn't tell you so—that something his life has lost,
Quiet and peace and comfort he has, but a trifle too high the cost,
And at night when the valley mists close in and he stands at his pasture bars,
He realizes that he has missed youth's vision of the stars.
She stands at her kitchen door, his wife, whom he married long ago,
Quicker in thought and action, she, than the man who toils below,
Keeping her home serene and fair, upholding a standard high
To the children God has given her, while their golden youth slips by,
Knowing full well that the hills that seem a barrier fast to be,
Would open and welcome the best of life, if only she had the key.
Something, somewhere there surely is, to sweeten the country life,
To broaden the mind, quell jealous griefs, and to bring peace out of strife,
Something to show men the way to work in community of soul,
Something to bring them achievement as onward the swift years roll,
And she holds the thought—as she keeps her soul—through all of life's frets and jars,
That the country woman *must not* lose her vision of the stars.

There has risen an army in later years to come to the yeoman's aid,
With wornout soil and with pest and drought it fights on unafraid,
It is followed close by a fine array of women with purpose true,
With courage and loyalty they work—unmeasured the good they do;
They are teaching us how to rear the child to a strength and health complete,
And to household efficiency and skill they are pointing our eager feet.
There's a College that stands on a fair, green hill and it cares for the rural need,
And it offers us sane and helpful thought, worked out in word and deed,
There are men who are working in every line to bring to the farm its due,
With "Cooperate" as their watchword they will strive for a freedom true.
But back of them still in the kitchen door, stands the wife with her face to the hills,
Who waits for the key to unlock the pass to the higher life that thrills;
She wishes her hearthstone to have the best that the wide world gives to-day.
She wishes the countryside to live in harmony by the way,
She longs for the day when her child may learn in the schoolhouse down the road,
The things that will fit him when a man to shoulder his share of the load,
She waits for the time when the church will throw its narrow doors apart,
And teach to all the creed of love and the understanding heart,
She is willing through service to guard and keep her community from harm.
And she asks your aid for these greater tasks—this woman on the farm.
You are working to gain for the farmer the share that is his by right,
And only his voice—united through you—will bring him his power and might;
So toil—for the farmer knows 'tis true that without you he would fall,
So work, for the nation rests on you who have heard the country's call,
And keep, so vivid and clear and keen that nothing its brightness mars,
For the sake of the farmer and his home, your vision of the stars.

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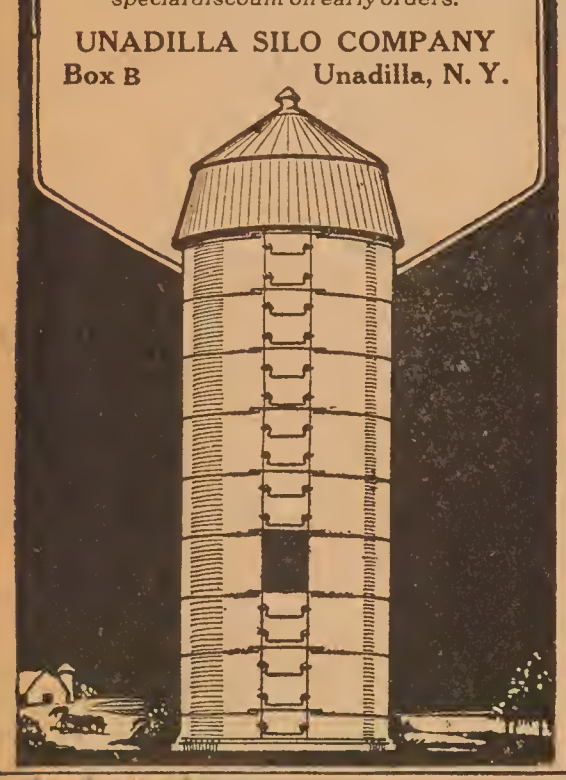

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A Doomed Countryside

A Farm Valley That Will Soon Be a Lake

LAST week I attended a Farm Bureau community meeting at Gilboa, in my own county of Schoharie. The little town is in the valley of the Schoharie River, on the western slope of the Catskill Mountains. The upper reaches of the valley lie remote from the rail, and it is preeminently a region where old manners and bygone customs linger long. Someone has well called it "The Sleepy Hollow of New York." I shall never forget the first time I saw it, for it was under such pleasant, not to say romantic, circumstances. It is some 40 miles from my home by the usual driving route. It was 22 years ago last June, during weather worthy of that glorious month, that I pilgrimaged there in a strange and now extinct sort of vehicle known as a basket phaeton. Said vehicle was deemed quite a stylish equipage when it was purchased in the early 80s. The propelling power was a fat, lazy, short-legged black pony bearing the appropriate name of Topsey. The phaeton and the pony grew old together. We drove them for 20 years and more, until one unhappy morning Topsey was found in the stable with a broken leg, and thus went prematurely out of the world. But she was some pony in her time. When newly overhauled and put into high gear, she was capable of say five miles an hour for not too long a stretch, but half of this was her regular running schedule. She never backfired, or knocked, or had tire trouble. Her motto was safety first, and she broke no speed laws or traffic regulations.

J. VAN WAGENEN, JR.

The Human Birdnest

Behind her in the low, sweet chariot which she drew, was somehow stowed my wife and two small babies and myself, together with the absolutely necessary impedimentia of travel. To the observing wayfarer, as we slowly drifted up the valley, it must have suggested, in the phrase of Corra Harris, a sort of itinerant "human birdnest," so to speak.

We were all of us more than 22 years younger than we are to-day. I have been up and down the valley many times since, but never was the sky so blue and the grass so green and the wooded mountains so altogether lovely as on that halcyon journey in the golden month of June. I cannot be sure as to our hourly mileage, but it was very small.

We slowly meandered up the lovely valley, by leisurely roads, under old trees, past sleepy farmsteads, having frequently by our side the bright gleam of the river, having often in our ears the music of its slipping waters. I love to remember how we passed through the rich, broad acres of Vrooman's Land, overshadowed by the towering, rocky face of Vrooman's Nose. Romance and history lie thick hereabouts, for surely no part of our State suffered more pitifully during the dark and bloody days of the Indian troubles and the Revolutionary War. Here dwelt the men who in those days sent to the Committee of Public Safety at Albany this simple, eloquent, pitious appeal: "The greatest harvest in the memory of man lies rotting on the ground, and no man dare go into the fields to gather it."

Old Landmarks Along the Way

We negotiated the "tow-path" where the road, then much narrower than now, is carried on a shelf, blasted out of the mountain-side with the river directly beneath, while just beyond is Bouck's Island, ancestral home and seat of John Christopher Bouck, the only genuine, honest-to-goodness Farmer-Governor our State ever knew. Last summer I went to see the old house where he and his fathers dwelt, but the glory has departed, and the hand of neglect and decay is heavy on the big old farmhouse under the old trees.

At Breakabeen we passed the foundry and machine shop with the great overshot water-wheel beside it, that day half hidden in a white smother of foam as the waters of the Keyser Kill spouted and dashed over it, but the shop is silent, and the wheel has not turned for many years.

At Blenheim we drove through the resounding tunnel of the longest single-span wooden bridge in the world—198 feet between abutments—built 80 years ago by country carpenters who never saw a blue-print or heard of stress or shear, and having for tools chiefly the saw and broad-ax and adz and auger. Surely there were cunning workmen in that time.

So, in due course, we came to Gilboa and dined at the inn, but I cannot remember if "Pop" Peters was then the landlord, as he was for many years thereafter.

I might gossip further about this pleasant pilgrimage, but I must not dream.

Recollections of the Old Village

So last week I came again to Gilboa. The village is old. Long ago it had a tannery, as did all the villages in the valley, but it had a cotton factory also. One day—I think it was in 1869—it began to rain summer showers up creek in the Catskills, and the old Schoharie rose up and went on a rampage. An old man used to tell me how he saw the cotton factory and the cotton bales and a wagon loaded with finished cotton cloth go bobbing down the turbid flood together. That disaster finished the industry. By the way, that same flood undermined the bank of the creek and exposed what is said to be a most remarkable fossil forest, which is just at this time being worked over by the American Museum of Natural History in New York.

Then, about 1890, a fire swept away a good part of the town, and for a day gave them a place in the Associated Press news. The rebuilding was prompt and complete. Ten years ago or so the village had another flutter, when the Delaware and Eastern Railroad came pushing over the hill from Grand Gorge. I was at a Farmers' Institute there that fall, when we could hardly keep audience enough to do business because everybody wanted to go down and watch them get the steam shovel across the creek and up the steep bank into the town. There were big cuts and fills and substantial concrete bridges completed and high tressels against the hillside above the village. Gilboa needed little imagination to see the long coal trains rumble past, for the new road was ambitiously conceived as a shorter cut-off to the anthracite regions. The little town fairly buzzed with activity and anticipation, and then, without warning, the construction gangs went home one night and they never came back. So Gilboa was left with only the memory of great expectations and a right of way.

Doomed to a Watery Grave

But at last the village is put permanently on, or, rather off, the map. New York City, as a great concern should, looks far into the future, and plans for years to be. Her engineers say that it is, relatively speaking, only a short time until she will outgrow her present water supply. So they pitched upon the upper reaches of the Schoharie, and for years have been measuring the daily flow of the river and making deep borings to ascertain the character and depth of the bed-rock foundation. It was a tremendous task that was begun, involving the building of a giant dam that will convert a one-time fertile valley into a mountain lake extending for six miles, and then the diverting of the waters of the river to another watershed through a tunnel more than sixteen miles long.

So to-day the sleepy village has become a roaring construction camp. Just where was formerly the lower end of the long village street, the dam, a great structure of concrete faced ("veneered," as the engineers would say)

(*Continued on page 7*)

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New York County Notes

Winter Meetings Are Now the Order of the Day

FROM practically every corner of the State folks report an increase in the number of farm meetings. These meetings not only include the meetings of farmer cooperatives, but institutes and farm schools. The main topic of discussion seems to be the milk problem, according to reports from the various counties. Undoubtedly this winter will determine which way many of the cooperatives will finally head.

In the Northern Counties

Essex Co.—During the last week in November, O. H. Benson, Director of the Junior Achievement Bureau of the Eastern States League, held meetings throughout the county in the interest of boys' and girls' work. The Pomona Grange met in Jay early in December. On December 4 the Guernsey breeders met at Westport and organized a county association. Farmers are much concerned about the fuel problem. The increase in Farm Bureau dues from $2 to $5 a year is creating much discussion. Eggs are now bringing 60 cents a dozen, pork 15c a pound dressed. —Mary E. Burdick.

Lewis Co.—Interest seems to be quiet here in Lewis County at present. Farmers are discussing the milk situation to considerable extent. Hay is selling from $12 to $13 a ton. Potatoes are bringing 60 cents a bushel. Good creamery butter is 65 cents a pound, with light demand. Farmers are hard pressed for water for their stock. Rain is needed badly at present.—Charles S. Stiles.

St. Lawrence Co.—Gas Engine schools were held the middle of December. New officers were recently elected into the Grange. Milk is the chief topic of conversation among the farmers. Opinions vary; many are not satisfied with the prices. Turkey sold for 60 to 65 cents; eggs are plentiful. The fairly mild weather we have been having has relieved the fuel situation.—H. S. Howard.

In Central New York

Chemung Co.—Farm and Home Bureaus held a joint meeting in Elmira recently when plans were made for 1923. Beekeepers are determined to eliminate foul brood. The tobacco crop is about half bundled. We had about 8 inches of snow for Christmas. Dairymen in the county feel quite content with the price of $2.20 per hundred and up, depending on the test. Supervisors of the county have voted $26,000 for road improvement. The Holstein men met in Elmira on December 18 to plan the coming year's program. One of the subjects that is being most generally discussed by farmers at Grange meetings, is the problem of the rural school. New Grange officers will be installed the second week in January.—C. J. G.

Tioga Co.—"Drives" for financing the County Farm and Home Bureaus, the Home for Aged Ladies and the Red Cross are going on this week. The concrete community hall that has been erected at Cattatonk was recently dedicated with appropriate exercises. Various public officers and prominent citizens supported this movement. There is no question but what this building will add greatly to the life of the community and the surrounding territory. Weather continues mild. We have had some snow during early December, but it disappeared quickly. We certainly need rain, as wells and streams are very low. The biggest problem in this section is a fuel problem. Although most farmers have plenty of wood, the scarcity of labor has compelled them to use coal.—A. N. Drews.

A Doomed Countryside

(*Continued from page* 6)

with cut-stone towers into the air. Above it all, spring the slender skeleton masts up which the concrete is hoisted and poured off through iron pipes like so much liquid mud. Below the dam, in the valley, has grown up a mushroom town that suggests one of our army cantonments—a sprawling collection of stores, barracks, messhalls, machine shops and engineering offices, together with a vast litter of pipes and rods for reinforcing concrete, broken and rusty machinery, and all the debris that accumulate around a great engineering job.

How New York City Works

One is impressed with the thoroughness with which the biggest city in America does its work. For example, where the former roads will be flooded, she has replaced them with splendid boulevards skirting the hillside above high-water mark. The sanitary policing of the whole watershed is a big problem, and every home in that area will be provided at the expense of the city with an approved system of sewage disposal.

The great city even reaches out its strong arm for the maintenance of law and order in this remote village. Up and down the town and throughout the large area controlled by the city ride the Metropolitan Mounted Police. I must say that in appearance at least they make our youthful State Troopers look like jokes. The city police are much older, middle-aged, handsome—I might almost say distinguished looking —men of grave courtesy. They are splendidily mounted and equipped, and they sit their horses like kings. Moreover, they seem to do their work. Our County Judge said to me that he had fully expected the County Courts would be choked with cases of the "assault and battery" type. As a matter of fact, there has been almost nothing of the kind, a remarkable thing when you remember that here is employed a small army of what we usually think of as ignorant, low-grade emigrant labor. Evidently the foreigner instinctively fears and respects authority as personified by "the man on horseback."

Countryside Awaiting Extinction

The whole village and many square miles of the valley is now the property of the City of New York, a rather easy-going landlord, I am told, who continues to allow the former owners to occupy their houses and farms at a rather nominal monthly—not yearly—rental. Of course, no one ever paints a house, or repairs a sidewalk, or nails on a shingle. It is a strange spectacle, this—a town just waiting for final extinction. But some day—it may be two years, it may be longer—the dam will be completed, the woodlands cleared off, the village and farms razed, all sources of pollution cleaned up and disinfected. Then the massive steel gates will slide into place and a mountain lake will blot out the fat valley and bury many fathoms deep the farms where men have made their homes since pre-Revolutionary days, and never again will the Schoharie go slipping down its natural channel to the sea. Then may the Keeper of the Records of the ancient and honorable community of Gilboa write "Finis" and close the book.

There is pathos in all this. Of course, the city has paid—in most cases paid liberally for the tangible things she took. But she did not and could not pay for the associations and loves and memories that cluster around all good homes. There seems to me to be a certain sort of ruthlessness in the legal doctrine of eminent domain, which permits a great city to put forth its hand and wipe from the earth an obscure village in its mountain setting.

> Happy is he whom neither wealth or fortune
> Nor the march of the encroaching city
> Drives an exile
> From the hearth of his ancestral homestead.

Some future golden summer day I hope to again journey up the valley until I come to the towering gray rampart of the dam that joins hillside to hillside. And above it the clear water will sparkle and gleam in the sunshine, and the little waves will lap the shores and the tourists rolling along the wide boulevards that skirt it will speak of its beauty, but I—I shall remember the drowned valley as I saw it many years ago, and I shall be a little sorrowful for the folk whom a great city drove from their quiet farms beside the pleasant stream.

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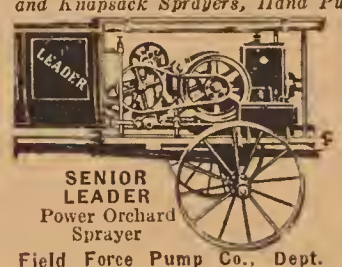

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The Cabbage Market

Methods Must Change to Stabalize the Supply

SEVERAL weeks ago the bottom dropped right out of the cabbage market, both in New York City and at loading points. Growers were unable to realize more than $2 or $3 per ton.

PAUL WORK

Of course, few sales were made at such figures, and dealers shipped but little when it was apparent that it would find a market overloaded and quoting at but $8 or $10 per ton, or even less. With the supply thus cut off, prices began to pick up, and at the time this is written quotations in New York lie between $20 and $25. The slump came at about the time when cabbage had to be taken from the field or lost, with the result that a good deal was unharvested. Thus was some of the 1922 bumper crop disposed of, but not moved. The financial condition of the farmers encouraged early sales. Now it appears that prospects are much better for reasonable prices during the coming months—now that comparatively little remains in the hands of producers.

The Same Old Story

The same story has been related many times before, and events will doubtless take the same course many times in the future. Harvest time sees supply at the peak, and any commodity that must be held for later sale tends to pass from weak hands to strong. It is doubtless best for the small producer who cannot or will not thoroughly learn the storage game and provide himself with favorable storage facilities to sell early. Both of these are large undertakings and call for a type of skill that is clearly distinct from the skill necessary to produce well.

The average difference between November and March prices is, to a great extent, taken up in shrinkage, interest, labor and equipment costs, to say nothing of the risk which is accepted and which deserves its reward. Even the fall seller has much to gain through careful study of markets and the development of bargaining ability. Perhaps most important of all is the production of a quality which tends to make buyers come to the seller.

Reports from cabbage sections indicate an increasing tendency for producers, either singly or in groups, to provide storage houses and to be ready to sell at such times as seem most opportune during the winter.

Canners are Well Organized

The New York State Canners' Association, with some 75 concerns and perhaps 125 factories, was able to muster as strong an audience for a State meeting as the 35,000 commercial vegetable growers of the State. At their annual session, recently held in Rochester, they took no uncertain position with regard to the few remaining factories which do not work under fair sanitary conditions. They are enlisting the help of the two State experiment stations in connection with raw product and processing problems. Secretary J. P. Street feels that there is an excellent opportunity for the development of an asparagus canning industry in the State. Little seems to have been said at the meeting about the relations between canner and grower.

Advertising Sauerkraut

It took a good imagination to select the "Old Sauerkraut Barrel" as the basis for a campaign of national advertising. Yet the Saturday Evening Post recently carried a full column layout lauding the virtues of this homely food. It quotes nutrition experts regarding the value of the mineral salts, the vitamins, and the lactic acid ferments which saukerkraut contains. The reader is offered a booklet of information and recipes. The campaign is backed by the National Kraut Packers' Association.

Thus do the middlemen think more of our commodities than we. Thus do they fight a battle in which we are interested, and most of us are content to believe that our concern ends when we have made delivery at loading station or factory.

Gardeners Hear of Jersey Practices

Not long ago Cornell students who are interested in vegetable production, both regular and winter course, gathered to listen to C. H. Nissley, Extension Specialist for New Jersey. Nissley believes in 5-6-50 home-made Bordeaux for potato and celery blight, as well as other fungous troubles where it fits. High pressure and three nozzles to the row insure thorough work. He believes Borbeaux dust is still in the development stage.

The speaker told of the open market for can-house tomatoes at Swedesboro. Contracts are not common in this section, and the loads are hauled to town to await the pleasure of the buyers. In more than one instance the buyers have offered exceptionally high prices on a morning when the supply was light. The result is heavy picking, and two mornings later they are able to make purchases at their own figure. The manipulation has been as wide as from 18 to 43 cents.

New Jersey Vegetable Gardening Practices

Brookdale, N. J., is a center for horse-radish production. The sets are stored in sand over winter, and are planted nearly horizontally in rows in beds. After they have made part of their growth, the upper part of the root is lifted without disturbing the bottom. The side roots are then rubbed off with a woolen cloth. They are again covered, and the process is repeated some four weeks later. This scheme, of course, greatly increases the cost of production, but it results in a product of exceptional quality and yields frequently reach five to six tons per acre.

Bergen County sweet corn growers have standardized on a few types of this crop, and they have built up a fine market in New York. Their product is distinguished by dark husks and long "streamers," or leaves at the tips of the husks. John Handwerg, of this county, has made fine progress in seed improvement. Atlantic County growers are beginning to standardize on a few types of muskmelons.

Japanese Onion Resembles Ebenezer

Japanese onions are being grown in South Jersey. This is a slow growing, flat onion of remarkable keeping quality. There is reason to believe that it is the same as Ebenezer, which has been grown in Western New York for many years, and which is also planted in certain sections of Iowa. Ordinarily sets are grown from seed and the market crop is grown from the sets.

The scarcity of manure and the better control of plant bed diseases are encouraging the use of flue-heated hotbeds for sweet potatoes.

Professor Nissley recently told the Boston Market Gardeners' Association how they grow crops in Jersey. Such men should be freely exchanged for meetings in the different states, for they are certainly full of suggestive ideas.

Grape Pruning—Grape pruning is done in late February or March. Remember that the fruit is borne on new wood, growing from the buds now present on last year's wood. Most people owning a few vines do not prune grapes heavily enough. A strong vine should be pruned to carry not more than twenty to fifty buds, and weaker vines will do best on even less buds. Too many buds will form too much inferior fruit, sapping the vitality of the vine. Eight canes with about six buds each is a good proportion for a strong vine.

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Berry's Poultry Farm, Box 74, Clarinda, Iowa

Acetylene For Cooking

Heat, Light and Power Problem on the Farm

"CAN acetylene gas be used for cooking purposes? If so, are any special attachments necessary, and what is the best type of acetylene plants?" asks C. W. B., of New York.

Acetylene is quite commonly used for cooking purposes, and as such is fairly satisfactory fuel. It gives the farm housewife an opportunity to utilize the advantages of the gas stove, even though she be located far from the ordinary gas plant. Manufacturers of acetylene generators and lighting apparatus have perfected equipment whereby acetylene can be used for cooking purposes, and nothing special is needed except the gas stove. The installation of the stove and its regulation for cooking purposes is practically the same as for any other type of gas fuel. It is wonderfully convenient, of course, since all that is necessary is to light the gas and let it burn. The constant charging of the stove, which is necessary where wood or coal is used, is eliminated.

There are a number of different makes of acetylene generators on the market, practically all of which are very satisfactory, and no doubt any reliable manufacturer can readily refer prospective purchasers to long lists of satisfied users.

Two General Types of Generators

Acetylene generators are of two general types, one in which the calcium carbide is dropped into the water, and the other, in which the action is just the reverse, that is, the water is dropped into the carbide. The first, or carbide-to-water system, is the one that is almost universally used in house-lighting acetylene plants, because it admits of much more effective regulation. The outfit consists of a closed vessel containing water in the lower part, and an arrangement for holding carbide in the upper part. The lower part of the carbide container is provided with a special feeding device, which allows a certain quantity of carbide to drop into the water chamber below. As soon as the water and carbide come in contact with each other, the generation of the gas begins. The gas that is generated is led away from the container through a system of pipes to the burners.

The second system of generator, known as the water-to-carbide system, is more adaptable for certain types of lamps, which are subjected to rather hard usage and which contain only a small quantity of carbide.

Types of Burners and Globes

The burners used in an acetylene lighting system may be either what is known as the luminous type, or the incandescent. A luminous burner is one in which the fuel is permitted to combine with oxygen in such a way that one or more constituents of the gas evolves light as it undergoes combustion. The ordinary open gas burner is of the luminous type. An incandescent burner is one in which the fuel burns with a flame, which is in itself atmospheric or non-luminous, the light being produced by causing that flame to play upon some extraneous refractory material that has the property of emitting much light when raised to a sufficiently high temperature. These refractory materials are usually woven into a hollow texture-like shape called a mantel.

The best globes that can be used for acetylene lights are those made from some material which protects the eye from bright and direct rays of light, yet disperses and diffuses the light so that none is lost, but all is used for illuminating. Plain transparent glass, unless the surface is especially sharp in prismatic form, is rather unsatisfactory for globes. Opalescent glass is better.

WINDMILL ELECTRIC PLANTS

Can a farm electric plant be operated by an up and down pump rod 8 ft. windmill. Can enough current be stored to run a 1 H. P. motor 3 hrs. a day? What do you consider the cheapest and best farm lighting plant? Are windmill plants practical?—(C. H. T., Essex County, N. Y.

There are several companies manufacturing farm electric plants, using the ordinary windmill wheel as the means of utilizing the power of the wind. An eight-foot wheel is rather small, it is better to have a larger one, since the larger the wheel the more power developed. The amount of current that can be stored up in a storage battery will depend upon the capacity of the generator, and also upon the steadiness and intensity of the wind. I would surmise that under normal conditions, using a fairly large wheel, it would be possible to operate a one horse-power motor from such a storage battery for three hours per day.

In asking me for my opinion as to the cheapest and best electric lighting plant for the farm, you give me a question which I cannot truthfully answer, because there are a number that are very good; some have advantages and disadvantages which the others do not possess. I doubt whether any unprejudiced person can give you a real answer to this question.

I know that wind electric plants are practical, because there are a great many of them in constant use.

CARING FOR THE FARM LIGHTING PLANT BATTERY

What is an overcharge for the ordinary cell of a farm lighting plant battery? If one cell is weaker than the others, should I continue charging all cells, even though some gas before the weaker ones are fully charged? Should the specific gravity of the electrolyte be allowed to run down about to the minimum before recharging or should it be charged more frequently? Is it best to keep the battery fully charged or to let it partially discharge?—M. R. G. Pennsylvania.

A fully charged battery should show specific gravity of between 1.275 and 1.3. When the battery shows specific gravity of 1.15, it is discharged. In determining whether the battery is fully charged or not, a hydrometer should be used. Do not depend altogether upon gassing as an indication of a fully charged cell. There are many reasons why one cell in a battery will show lower specific gravity than another. The cell may have lost some of the electrolyte in shipping, and if so, the gravity must be brought up by adding more acid. The acid should not be added unless the cells are fully charged as indicated by the hydrometer.

A falling off of the specific gravity can usually be traced to wear on the plates, leaky jars or sediment. The gravity in all cells ought to be within 10 to 15 points of each other. It is advisable to recharge the batteries about once a month. This recommendation varies a little with the different makes of batteries. It is not advisable to let batteries become entirely discharged, as there is danger of injuring them. In most farm lighting plants the charge is maintained during the time the engine is run for using current for other purposes. It would be best if the battery could be fairly well discharged and then completely recharged.

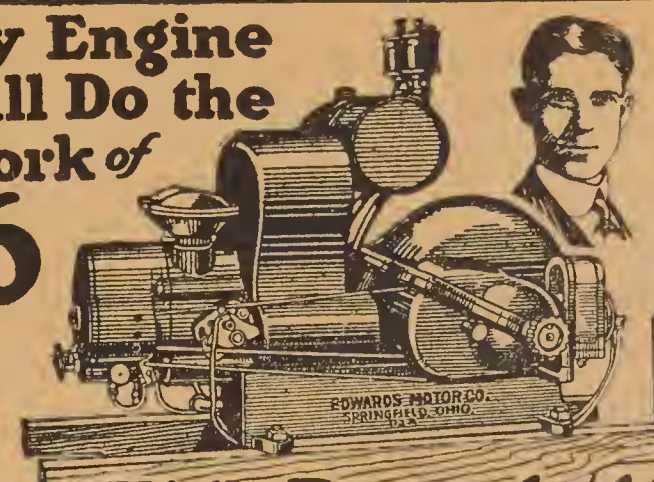
DETERMINING POWER OF FLOWING STREAM

Will you inform me what horsepower can be secured from a stream flowing through a trough 22 inches wide and 1.2 inch deep at 3 feet per second? What fall would be necessary to give sufficient power to operate a generator for farm use?—(R. F. M., Paoli, Pa.

The stream described in your inquiry has a flow of approximately 15 cubic feet per minute, allowing for friction in the trough. This amount of water would have to fall a height of 35 feet in order to develop about one horsepower, and this is not taking anything for the loss of power as a result of inefficiency, which may be anywhere from 10 to 20%. Of course, with a lower fall, less power would be developed, and it could still be used for electric generating purposes, since a storage battery could be utilized to take care of the electricity which is being continually produced. I should imagine that if you could obtain anything like a reasonable fall, that it would be possible for you to use an impulse wheel and a small generator, and make an advantageous use of it.

• • •

My Engine Will Do the Work of 6



"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."
—*A. Y. Edwards.*

EDWARDS ENGINE

Try This Remarkable Engine FREE

There is no other farm engine like it. Simple in construction and easy to operate. It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P., yet it is so light that two men can carry it easily. Set it anywhere and put it to work. Change power as needed. It is a 6 H. P. when you need 6, or 1½ H. P. when you need only 1½, or any power in between. Fuel consumption in proportion to power used and remarkably low at all times. Adjustment from one power to another is instantaneous. It is many engines in one. Operates with kerosene or gasoline. Easy starting, no cranking. Low factory price—now lower than before the war. The greatest gas engine value on the market. And you can prove all of these statements to your own satisfaction—try the engine yourself—free of cost or obligation.

What Users Say

Ivan L. Blake, of Hannibal, New York, says: "Only engine economical for all jobs. I run a 28-inch cord wood saw, a 24-inch rip saw, a washer, a pump, and a grinder, and it sure runs them fine. It has perfect running balance, and it sets quiet anywhere."

Robert Gruett, of Spokane, Washington, says: "It has given entire satisfaction. Furnishes steadier power than my old engine which weighed twice as much. It is portable, adaptable and free from vibration. If I sold my Edwards today, I would order another tomorrow."

Frank Foell, of Cologne, New Jersey, says: "It's a great pleasure to own an Edwards engine. I run a wood saw, cement mixer, threshing machine, etc. Do work for my neighbors. Easy to move around and easy to run. I would not have any other."

Clarence Rutledge, of Manitoulan Island, Ontario, says: "Have given my Edwards three years' steady work and like it fine. It uses very little fuel. I run a 28-inch cord wood saw, also a rip saw, 8-inch grinder, ensilage cutter, line shaft for shop, churn, washer, separator and pump. Have had ten other engines, and the Edwards beats them all."

Kurt Kruger, of New Brighton, Minn., says: "I run a 30-inch wood saw, 8-inch feed grinder, also a pump jack. You cannot beat the Edwards for general farm work."

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Now—we want to prove our claims to you. We want to send you an Edwards engine for absolutely free trial. Just send us your name and address and we will send immediately complete details about the Edwards engine and about our remarkable free offer. No cost or obligation. Write now.

The Edwards Motor Co.
133 Main St. Springfield, O.

What WITTE Users Say Is Best Proof of WITTE Log Saw Superiority

When You Buy a WITTE You Get the Best and Only Log Saw I Make

Steadier Power-Faster Cutting

Read What They Say:

"After seeing three makes I bought a WITTE." (Cal.)
"Sawed fifty 18-inch trees in five hours." (Iowa.)
"Bigger the timber—better she works." (Can.)
"Wouldn't sell for double the price." (Idaho.)
"Outfit works to perfection on fir." (Wash.)
"Log and Tree Saw do perfect work." (Nev.)
"My 15 year old daughter starts it." (Mo.)
"Everyone says 'Best they've seen'." (Can.)
"No limit to the amount of work." (Kan.)
"Beats anything that I ever saw." (Ia.)
"Starts on first whirl." (Cal.)
"Runs fine on kerosene." (Wash.)

It's Practical — Durable — Big Capacity — Easy to Operate. Engine speed properly timed with drive gear for steady running and fast cutting. Arm Swing motion—Semi-Steel Saw Levers. New WITTE Throttling Governor Engine. **Uses Kerosene, Distillate or Gasoline.** Increase or decrease power at will from 500 to 700 R. P. M.

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Saw cuts even and clean without excessive vibration. When used as Tree Saw, only 1 rig to handle. No time lost moving or setting. Positive lever control—Steel axles Reversible wheels—Built for hard work. Only Log Saw sold on **Lifetime Guarantee. Cash or Terms.** Write us.

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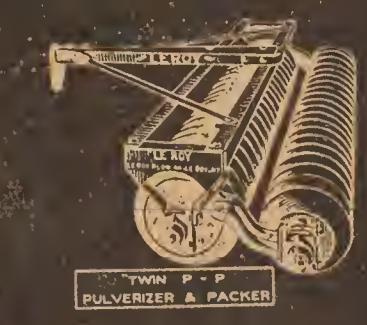

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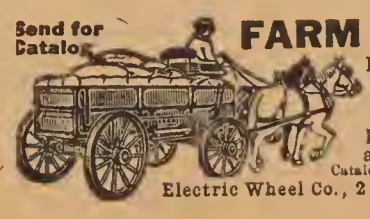

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Every cow in your herd can be made to produce up to her full capacity

—if you look well to her ration, her health, her appetite and her digestion.

Balance the ration. Feed bran, oats and corn, or their equivalent, cottonseed or linseed meal, clover hay, alfalfa, silage—pasture in season.

Remember, the better the appetite the greater the food consumption, the greater the milk production.

I spent 30 years in perfecting this Tonic.
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Keeps Cows Healthy *Makes Cows Hungry*

It conditions cows to turn their ration of grain, hay and fodder into pails of milk.

It contains *Nux Vomica*, greatest of all nerve tonics. *Quassia* produces appetite, aids digestion. *Salts of Iron* keeps the blood rich. There are *Laxatives* for the bowels, *Diuretics* for the kidneys, to help throw off the waste materials which so often clog the cow's system.

Excellent for cows at calving. Feed it before freshing. Good alike for all cattle.

Tell your dealer how many cows you have. He has a package to suit. GUARANTEED.

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Except in the far West, South and Canada.

Honest goods—honest price—why pay more?

DR. HESS & CLARK Ashland, O.

Dr. Hess Dip and Disinfectant

Keeps the Dairy and Stables Healthful and Clean Smelling

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WE give a *signed* GUARANTEE to cure even so-called "incurable" cases of SPAVIN, Ringbone, Thoropin, or,—Shoulder, Knee, Ankle, Hoof and Tendon Disease.

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cures while horse works, as more than 350,000 satisfied users testify. FREE, valuable 96-page BOOK tells how to locate, understand and treat every kind of lameness. Send for it today, together with sample, MONEY-BACK GUARANTEE, and expert veterinary advice—all FREE.

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140 Egg Incubator $13.25 30 Days Trial

Both Machines Made of California Redwood

Freight Paid east of the Rockies. Hot water, copper tanks—double walls—dead air space—double glass doors—a real bargain at $13.25. Shipped complete, set up ready to use.

140 Egg Incubator and Brooder -	$17.75
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Made of California Redwood—last a lifetime. Positively the best value on the market today. Order the size you want direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our new 1923 catalog. (3)

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Hot-Water, Copper Tank, Double Walls Fibre Board. Self Regulated. $6.95 buys 140-Chick Hot-Water Brooder, Or both for only $18.95

Express Prepaid East of the Rockies. Guaranteed. Order now. Share in my $1,000 in Prizes, or write for Free Book "Hatching Facts." It tells everything. Jim Rohan, Pres.

Over a Million Users

Belle City Incubator Co., Box 147 Racine, Wis.

Oat Sprouter $2.49

For $2.49 you can build the simplest, most efficient, easiest to operate and best oat sprouter ever constructed. A boy can make one in an evening with no tools but saw and hammer. Thousands in successful operation. Plans with plain directions for building, 16c postpaid.

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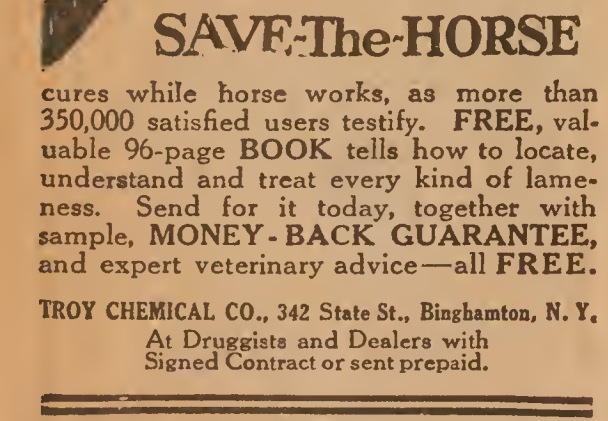

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Electric Wheel Co. 2 Elm St., Quincy, Ill.

Milk and Meat Scrap in the Poultry Ration

THE question is often asked why it is that we feed animal food. It is because of the presence of certain acids, particularly the various amino acids, which are all important in growth, production and vigor, according to Professor Hervey, of the New Jersey Station. Meat scrap contains these acids in a more available condition than a great many other animal foods. He claims there is nothing that we have as a commodity at the present time that is as good as meat scrap. Powdered buttermilk, or any other milk, fed in the dry state, might logically be included in the dry mash, but as an additional ingredient for the purpose of adding variety, and therefore making the dry mash a little more palatable—in other words, to create a greater consumption of mash by the birds. Powdered buttermilk, powdered skim milk, and, of late, semi-solid buttermilk, reduced to the powdered state, have come to be used more or less generally by commercial people.

Dry or Semi-solid Milk

The question has arisen whether one can afford to feed powdered buttermilk and semi-solid buttermilk; also whether one is a substitute for the other. The New Jersey Station has been recommending the use of semi-solid buttermilk as an adjunct to the other feeds, in the solid form, at the rate of three pounds per 100 birds daily. Semi-solid buttermilk in this form is a good tonic. It contains lactic acid bacteria, which help to ward off other disease germs, and therefore serves to keep the birds in a good, healthy condition.

The other milk products in the dry state he does not believe are as efficient as semi-solid buttermilk in this particular respect. However, their use is logical in a dry mash because of the other properties of palatability an digestibility. This does not in any sense discourage the use of dry milk. Measured from a dollars and cents standpoint, it is questionable whether the poultrymen can afford to feed the two. Satisfactory production can be secured without the use of either one, but the use of semi-solid buttermilk in the winter period has a very good effect in preparing the body for the vigorous strain on the system that the spring laying season demands.

SUNFLOWERS FOR POULTRY

We started in the poultry business in a small way last spring. We have a large field of sunflowers that have headed out fine. Will you kindly tell us something of the food value of the sunflower seeds for laying hens?—Mrs. W. J. O., New York.

Sunflowers are considered very good for poultry. They are about equal to corn in digestive crude protein. However, they contain about half as much total digestive nutrients. In other words, sunflowers alone would not constitute a balanced ration. They may well be mixed in a scratch feed. In fact, some of the best commercial scratch feeds on the market contain a fair proportion of sunflower seeds.

It is usually advisable to slightly crush sunflower seeds by rolling some heavy object over them. This breaks the hard outer coat and also facilitates digestion. Some poultry keepers do not mix their sunflowers with the other grains, but keep them in a special hopper on alternate days during the late fall and early winter. It is best to start cautiously when feeding sunflower seeds to poultry, as the sudden change may have a deleterious action.

Livestock Sales Dates

Annual sale, Eastern Guernsey Breeders' Association, Devon, Pa., May 17.

Ward W. Stevens, Dispersal of Holsteins, Syracuse, N. Y., January 10-11.

Third New York Holstein Sale, Syracuse, N. Y., January 17-18.

M. H. Bennetch, Holstein Sale, Richland, Pa., March 5.

H. R. Remley's Holstein Sale, Watsontown, Pa., March 24.

Pinery Farms, Annual Holstein Sale, Mentor, O., June 4.

Poultry Shows

Madison Square Poultry Show, New York City, N. Y., January 24-28.

A New Discovery Makes Hens Lay

Any poultry raiser can easily and quickly double his profits by doubling his egg yield through the remarkable discovery of M. B. Smith, a Kansas City chemist.

Working along entirely original lines, Mr. Smith discovered why hens lay less in winter than in summer, and perfected a formula that turns loafers into layers and profit makers.

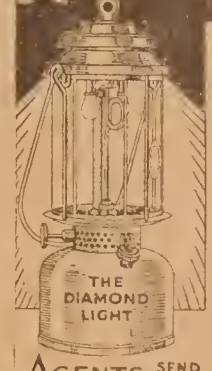
Within five or six days this discovery, which is called Ditto Egg Tablets, will rejuvenate your flock. Your hens will go strutting and cackling about with red combs and full of life and pep. Every nest will yield an egg nearly every day in the week, which means a lot, since eggs are certain to sell for 60 cents or more. This is not guess work as over 100,000 successful poultry raisers testify to the value of Mr. Smith's products.

Although different from anything you ever heard of, Ditto Egg Tablets are easily administered by simply dropping in drinking water.

So confident is Mr. Smith you can double or triple your egg yield, that he offers to send two large $1 packages of Ditto Egg Tablets (enough for a season) to any reader who will write for them. If you are satisfied they cost only $1 on this introductory offer, otherwise, nothing.

Send No Money—just your name and address to M. B. Smith, 1210 Coca Cola Bldg., Kansas City, Mo. The two $1 packages will be mailed immediately. When they arrive, pay the postman only $1 and postage. Use the tablets 10 days. If you are not getting more eggs or are not satisfied for any reason, simply return unused tablets and your money will be returned immediately without question. A big Kansas City bank guarantees the reliability of this offer. Write today before this introductory offer is withdrawn, as you can sell one package to a friend and thus get your own free.

New 300 Candle Power Lantern



Increases Egg Yield

Gives brilliant, soft, white light—like daylight. Just the thing to hang in hen house night and morning.

Burns Kerosene or Gasoline

Clean, odorless, economical. Burns less fuel than wick lantern. Is 100 times brighter. Lights with match. Absolutely safe. Greatest improvement of age. Patented.

Make $60 to $100 a Week introducing this wonderful new Light. Take orders for Lanterns, Table Lamps, Hanging Lamps among friends and neighbors. We deliver by parcel post and do collecting. Commissions paid same day you take orders. Get started at once. Write today for agents offer.

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"Dandelion Butter Color" Gives That Golden June Shade and Costs Really Nothing. Read!

Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade to bring you top prices. "Dandelion Butter Color" costs nothing because each ounce used adds ounce of weight to butter. Large bottles cost only 35 cents at drug or grocery stores. Purely vegetable, harmless, meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless.

Wells Richardson Co., Burlington, Vt.

HEAVES Is your own horse afflicted? Use 2 large cans. Cost $2.50.

Money back if not satisfactory

ONE can at $1.25 often sufficient. In powder form.

Most for cost

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A veterinary's compound for Horses, Cattle and Hogs. Heaves, Coughs, Distemper, Indigestion. Worm expeller. Conditioner. At dealers' or by parcel post.

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Quality Mfg. Co., Inc., Hagerstown, Md.

Legumes Cut Grain Bills

Are Farmers Cutting Milk Yield?—By H. H. Lyon

THESE wintry days dairymen are in some cases at least thinking of ways to reduce the amount of feeds it is necessary to purchase. There are many who find that it is necessary to buy the grain feeds on account of the cost of hired labor to grow grains. Some of these grew corn silage, but not all. Many are adding on clover somewhat and are thus tending to reduce the amount of grain feeds purchased. In a few cases alfalfa is grown or is being considered. In our strictly dairy districts alfalfa is not easily grown. There are many who have tried it who feel that it is too difficult a crop to spend time on. Others have come to the same conclusion by watching neighbors try it out.

In an occasional case men say that alfalfa is too difficult to cure. All of these have their reasons and they know much about what they talk. Most of us who have tried it do not get the clear alfalfa and never feed it without some other roughage is also fed. It has always been my custom to sow both timothy and clover in small quantities with the alfalfa. The farm bureau agent is now advising to try it with no seed other than the clear alfalfa. I have seen one such field on our heavy loam hill farm that was a success but it was after considerable experience had been secured in growing it with other seeding. My thought is that the mixed seeding is more easily cured and is fully as safe a feed.

A Question of Rotation

On most of our heavy soils where dairying is supreme there may be only about 10 per cent of the farm that can readily be made to grow alfalfa. In certain cases it is found that these same acres are the ones wanted for silage corn and that a rather short rotation needs to be kept for that. Many say that they can grow clover in the short rotation and perhaps get almost the same feeding value that could be obtained from alfalfa. I am not convinced that the clover crop is fully equal to alfalfa, but it is easier to get started and under such conditions as mentioned it may be the one to grow.

In other instances a longer rotation is desirable and if the land can be made suitable I believe that the alfalfa is to be preferred to any attempt to use clover exclusively. In such cases I still have a preference for seeding with clover and timothy or other grasses. At the same time I have advised a continuence of alfalfa alone where the agent has so advised and a start has been made. It is worth trying out more fully for the individual farmer on his own soil and for his conditions of feeding. The grasses volunteer quickly in the alfalfa lot and by giving the matter a trial one can determine which he likes best. The mixtures cure more readily and if the weather is bad a slightly later cutting still gets us a good feed.

Good Planning Helps

As stated, considerable of our hill land is not adapted to alfalfa and not all of it to corn and clover. By careful planning there will be sufficient clover and alfalfa to help cut quite a bit on the grain feed bill. It follows readily that both these need early cutting for best results. Frequently June is the time of rainy weather and the cutting is delayed. If there is no silo into which some of the clover may be cut in rainy times, the haying must be delayed if the rain comes as it frequently does in late June. That tends to make all the haying late. It goes without saying that early cut hay does much to lessen the grain bill. It may sound whimsical to discuss early haying in mid-winter but I have heard a few men talk it and I consider it a good time. We plan a good deal in winter for the coming summer. On a majority of our farms the alfalfa, clover and early cut hay stand the best chance for a cut in the feed bill of any line of planning that we have.

Farmers Hesitate to Buy Grain

A farmer drove up to a feed store a few days ago with his long wagon-box in which were twenty or more sacks. He commenced to ask the price of feeds, then he talked about the price of milk. He said he hadn't fed any grain all the fall and so far into the winter. He thought he should feed some grain although he is not milking fresh cows. It is the first time that he has failed to feed grain feeds as soon as the cattle go in the stable to remain and usually he feeds before that time. After considering prices for a little while he drove off saying that he would wait a while before commencing to feed.

I have heard of nothing quite like this case but I have heard of many who are feeding but little grain. I tried to check this up at the feed store but they in some cases insist that what they are selling about as common. Other dealers admit that farmers are not feeding nearly as much as in former years. It is a little difficult to determine exactly what the ratio is, but I feel sure that less grain is fed and that less milk is being made this season than for some years.

Reports as to the number of cows kept seem to differ also. It is possible that the number is somewhat less, but no great change can be found.

Many of the farmers young and some older ones are off the farms now and working in shops. This may mean that there will be a little less produced in crops and milk, but many of these men will return in the spring to the farms and so we need not look for any big drop in production from this cause. While I am looking for a little decline in the amount of milk made next year, it is likely that only weather conditions will make any considerable change.

Farmers generally insist that there ought to be less production but most of them are waiting for the other man to start the shortage and so it doesn't seem to start. However with this continual talk about lessening production it would seem as though the psychology of it might bring something in the way of results.

ACTION NEEDED ON FILLED MILK BILL

The Voigt bill forbidding Interstate Commerce in filled milk was passed by the House of Representatives last year after a great deal of work on the part of farmers and farm organizations. It is now before the Agricultural Committee of the United States Senate. It is said that the Committee is not likely to report the bill out favorably. If this is the case, no action can be expected by Congress this year and all of the work by farmers on this important bill will have been lost. Without doubt, the Voigt filled milk bill is one of the most necessary pieces of agricultural legislation from both the standpoint of dairymen and consumers that has been up for consideration in a long time.

Because there is huge profit in the manufacture of filled milk, the opposition to the passage of the Voigt bill is very strong. To overcome this opposition, will require the united and constant support of farmers. It is urged, therefore, that everyone reading this, write, or preferably telegraph immediately to Senators Wadsworth, Calder, Norris, McKinley, Ladd and Kendricks urging favorable action on the Voigt bill.

REMEDY FOR CALF SCOURS

Ordinary scours in calves are a simple digestive disorder, the result of carelessness in feeding. They should be attended to at once. Cut the feed in half and give a dose of caster oil (½ pint). Clean and disinfect all utensils.

White scours is a germ disease, and is usually fatal. Prevention methods constitute clean quarters for cows at calvng time, thoroughly disinfecting the calf's navel at birth, and clean quarters for calves, with plenty of sunlight.

A good remedy where calf scours are prevalent is as follows: 1 oz. Bismuth Subnitrate, ½ oz. Salol, 3 oz. Bicardonate of Soda. Give one teaspoonful of this mixture in ½ pint of milk three times daily.

Hens stand cold better than dampnes

At Calving
—when a cow needs a friend

"The Home Cow Doctor"

—this is the title of a genuinely authoritative book on cow diseases, and how to successfully treat them at home.

We want you to have a copy of this book, and will send it free on request. We merely ask you in return to give us the name of your local dealer.

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NO NEED to tell you that calving is a severe strain on the vital organs of even the most vigorous dairy cow. In the shock and strain lurk many hazards to health and milk-giving.

The genital and digestive organs, carrying the burden of this function, need help. They need a real friend—before, during and after.

Here is where *Kow-Kare* comes in strong. It contains the medicinal properties to build up the genital organs to vigor, and regulate the digestive functions as nature requires. Because of its success in bringing cows safely thru calf-birth in perfect condition its use in this emergency is known in most well-regulated dairies.

The use of *Kow-Kare* is neither expensive nor difficult. Just a tablespoonful of the medicine in the feed twice a day for two weeks before and for two or three weeks after calf-birth. A few cents spent to assist nature will repay you with a healthy, productive milker and a vigorous calf.

Kow-Kare is equally effective in treating *Retained Afterbirth, Abortion, Barrenness, Scouring, Bunches, Milk Fever, Loss of Appetite,* etc. Many dairymen feed Kow-Kare one week each month to every cow, and realize big increases in milk yield thru the added vigor of the herd.

Try *Kow-Kare* and you will use it always. Feed dealers, general stores and druggists sell it large size $1.25, medium, 65 cts. Sent prepaid if dealer is not supplied.

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Harder doesn't make the kind of silos that lean. They stand as rigid after ten or twenty years as the day they were built.

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20-30-40 qt. sizes

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SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

WHITE MUSCOVY DUCKS—$5 per pair. Utility Black Leghorn ckl's $3, two, for $5. My daughter Lucile is offering her sensation pig club boar, Oct., weight 236, $75. RALPH WILSON, Bloomville, Ohio.

MANY VARIETIES—Pure Bred Poultry, Baby Chicks and Pigeons at low prices. 100 page book in colors describes them. Mailed for 5 cents. FRANK FOY, Box 14, Clinton, Iowa.

ROSE COMB BROWN LEGHORN — Cocks, hens, cockerels; reasonable; booking orders for chicks and eggs. L. D. CLARK, Binghamton, N. Y.

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PRIZE WINNING AFRICAN AND TOULOUSE GEESE, White Runners and Buff Ducks. J. H. WORLEY, Mercer, Pa.

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PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

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MAMMOTH BRONZE TURKEYS. Hens and Toms. THOMAS VOKE, Skaneatles, N. Y.

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FOR SALE — Registered Guernsey cows, heifers and calves; accredited herd; May Rose breeding. ALFADALE FARM, Athens, N. Y.

MILKING SHORT HORNS—Two fine bulls. Farmers prices. WM. E. SUTTON, Windham, N. Y.

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REGISTERED CHESTER WHITE PIGS. Only a few left, "Prince Big Bone" blood. ALLAN MORTON, Ashville, N. Y.

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ENGLISH SHEPHERD PUPS, guaranteed heel drivers and to make perfect cow dog or an all-around farm dog Make good Christmas present for your boy or girl. Will ship on December 20. W. W. NORTON, Ogdensburg, N. Y.

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This is YOUR Market Place. It helps you to sell, buy, rent or exchange; to secure farm help or to find work. The address must be counted as part of the advertisement, and each initial or number counts as a word. Because of the low rate to subscribers and their friends, cash must accompany your order. Copy must be received by Monday to guarantee insertion in the following week's issue. Phrase your wants, as others have secured your interest, by following the style of the advertisements on this page. Classified advertisements are inserted at the rate of five cents a word per insertion; no single advertisement accepted for less than one dollar. Address all communication to:

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HOMESPUN TOBACCO. Chewing, 5 pounds $1.75; 10 pounds $3; 20 pounds $5. Smoking, 5 pounds $1.25; 10 pounds $2; 20 pounds $3.50. Send no money, pay when received. COOPERATIVE TOBACCO GROWERS, Paducah, Kentucky.

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TOBACCO — 10 lbs. chewing, $3; smoking, $2.50; second grade smoking, $1.50. Pay for tobacco and postage when received. FARMERS' EXCHANGE, Hawesville, Ky.

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BUY YOUR CIGARS direct. 50 LaColumnas, prepaid for $1.50. Agents wanted. HAVANA SMOKEHOUSE, Homeland, Ga.

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THE OLIVIA SAGE SCHOOL OF PRACTICAL NURSING offers one year's course in special bedside nursing to limited number of women. Classes formed quarterly. Pupils receive maintenance, uniform and salary. Apply to DIRECTOR, NEW YORK INFIRMARY FOR WOMEN AND CHILDREN, 321 East 15th St., New York.

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CALIFORNIA STATE LANDS—The State Land Board of California has for sale 87 irrigated farms at Ballico, near Merced, in San Joaquin Valley on main line Santa Fe Railway. The State makes it possible for you to own one of these farms, only requiring 5 per cent of purchase price, remainder in semi-annual installments extending over 36½ years with 5 per cent interest annually. Here is an opportunity to become a home owner on terms as favorable as renting. It will be a long time before any more land will be available under such generous provisions. Money advanced on improvements and dairy stock. Those already located very enthusiastic; you can farm all year in California; all deciduous fruits profitably grown; alfalfa a paying crop, ideal conditions for stock and poultry, many persons long some day to make their homes in California, with its winterless climate, plenty of sunshine, seashore and mountains, fertile valleys, paved highways, very efficient marketing, excellent schools; State Board's pamphlet, also Santa Fe folder describing San Joaquin Valley mailed free on request. C. L. SEAGRAVES, General Colonization Agent, Santa Fe, 951 Railway Exchange, Chicago, Ills.

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AGENTS WANTED—Agents make a dollar an hour. Sell Mendets, a patent patch for instant mending leaks in all utensils. Sample package free. COLLETTE MFG. CO., Dept. 140, Amsterdam, N. Y.

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SEED POTATOES—Russet Rural Variety. Seleeted twelve years. FAIRACRES POTATO FARM, E. R. SMITH, Specialist, Kasoag, N. Y.

ALFALFA HAY—First and Second Cutting, also Light and Heavy Clover Mixed. Ask for delivered prices. SAMUEL DEUEL, Pine Plains, N. Y.

BEES

HONEY—5 lbs. clover, $1.25; buckwheat, $1.15; 10 lbs. clover, $2.15; buckwheat, $1.90. Postpaid to 4th zone. We are Farm Bureau Members. RANSOM FARM, 1310 Spring St., Syracuse, N. Y.

PURE HONEY—Circular free. ROSCOE F. WIXSON, Dept. A. Dundee, New York.

COMB HONEY—Prices reasonable. FRANK GRIGGS, Seneca Falls, N. Y.

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LEARN AUCTIONEERING AT HOME—Full course, diploma. Free catalog. AUCTIONEERS' SCHOOL OF EXPERIENCE, 1215 Arlington Ave., Davenport, Iowa.

MALE HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

WANTED—Experieneed foreman that understands making furniture and wood novelties. EDWARD SADLER, Pine Plains, N. Y.

MISCELLANEOUS

ALL WOOL KNITTING YARN for sale, from manufacturer at 95c, $1.35 and $1.60 a pound. Postage paid on $5 orders. Free samples. H. A. BARTLETT, Marmony, Maine.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

FERRETS—Get our free booklet and prewar prices on sound healthy Ferrets. W. A. JEWETT & SONS, Rochester, O.

MILK TICKETS a specialty. Samples free. BONDS PRESS, Middletown, N. Y.

Old Accounts Collected

LAST September we received a letter from Mr. W. J. Steers, Massapequa, L. I., which told of a debt owed him by the National Pie Baking Company of Brooklyn. Almost a year before he wrote us, Mr. Steers had sold this company seventy-four barrels of squash. The driver left them on the promise that a check would be sent, but although Mr. Steers repeatedly wrote and also called himself, he never got any satisfaction about his claim.

It took some time for the Service Bureau to locate the debtor because the company had evidently gone out of business. However, we finally found that a reputable law firm in New York had been appointed attorneys in taking over the reorganization of the company. Through some careless bookkeeping on the part of the original owners, the address of Mr. Steers had not been kept, but the lawyers had discovered that the account was payable to him, and had held out sufficient money to meet this indebtedness if Mr. Steers succeeded in getting in touch with them.

They immediately enclosed a check of $92.50, asking the Service Bureau to forward it, and wrote: "We might add that you have not only been of service to Mr. Steers, but that we have likewise been served, in that you have enabled us to readily dispose of this account, as otherwise we might have been required to retain this fund on hand for some time awaiting developments."

Mr. Steers, on receiving the money, offered to pay any expense of collection, but as usual we wrote him that it was part of the service which the bureau was glad to render at any time, and that we were only glad that his complaint had been one we could settle so swiftly.

COLLECTED HIS COMMISSIONS

"It gives us great pleasure to enclose a check for $27.50 in settlement of your complaint." It was thus that the Service Bureau wrote to Mr. Bert F. Kiner, of Sloansville, Pa. who submitted his case to us last October. Mr. Kiner had undertaken in August, to sell fruit trees for a firm in New York State. His commission was to be 25 per cent payable on the weekly plan. When $36.18 was due him, he turned the case over to the Service Bureau. We investigated and found that the company had been rather laggard in paying its commissions, but that the delay was partly due to their natural wish to check up and be sure that the orders were good. In such a case the firms always require good references because they must pay out money in advance before they receive payment for the

The check for $27.50 covered the major part of the commission due him and the company stated that they would be glad to pay at once as soon as they received from Mr. Kiner the names of banks or other reputable references to cover the rest of the orders. Mr. Kiner felt that he either would not have received this commission or would have had to wait a great deal longer for it if it had not been for the Service Bureau.

MORE LOST EGGS

The American Railway Express Company recently made good a claim for a lost case of eggs within a few days after it was brought to their attention by this magazine. The subscriber who lives in Mannsville, N. Y. had previously endeavored to get action out of the company, but without success.

He very wisely referred it to the American Agriculturist at once. In all such cases it is better to call in the Service Bureau as soon as there is any difficulty because it is sometimes almost impossible to disentangle a case when many different people have had a hand in it.

Just at Christmas Time

A subscriber who had just received a check of $9.03 through the good offices of the Service Bureau, recently referred to us another case which concerned a lost crate of eggs. We took the matter up at once with the wholesale dealers to whom he had consigned it and at first they claimed that they had no record of the case of eggs. We kept after them however, and just before Christmas Mr. Lewis Green, of So. Otselic, N. Y. received a check for $6.74. He felt that if it had not been for the service which we rendered he never would have received this money which came just in time for the holiday.

Simple Farm Accounts—The first of the year is the time when those farmers who do not already have a good system of keeping accounts should turn their thoughts in that direction. The county agent can advise on this problem.

Just to say that Tulips came last evening, all O. K. condition. Mrs. Olin says the finest bulbs she ever saw. She was more than pleased with same, besides they were ordered for a surprise and birthday present. But we are truly thankful for them, also to know that each issue of the American Agriculturist is better than the previous week. Wishing you the best that is going.—Arthur V. Olin, St. Lawrence Co., N. Y.

This Fine Suit $18.00 MADE TO ORDER *Delivery Prepaid*

Most stupendous values ever offered—a 3 piece suit of fine blue serge or silk mixed worsted, tailored to order at our special introductory price of $18.00. Satisfaction or money back guaranteed. No extra charges.

SAMPLES FREE Let us send you FREE, a large assortment of cloth samples in latest colors and patterns—self measuring charts and full information about styles and prices. We guarantee to fit and please you and save you one-third or money back.

Your Suit Won't Cost a Cent

If you have a few spare hours your own suit won't cost you a cent. *We are paying good men $10.00 to $50.00 a week for all or spare time.* No experience needed. Send no money—just your name and address.

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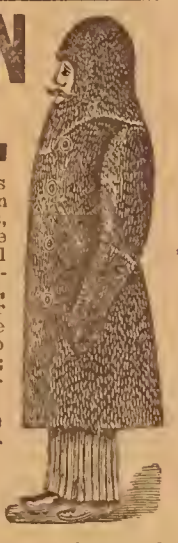

Horse or Cow hide, Calf or other skins **with hair or fur on,** and make them into coats (for men and women), robes, rugs or gloves when so ordered; or we can make your hides into Oak Tanned **Harness or Slaughter Sole or Belt Leather; your calfskins into Shoe Leather,** colors Gun Metal, Mahogany Russet or lighter shade. Calfskins tanned in the lighter shades of shoo leather, also make **elegant stand and table covers;** great **for birthday,** wedding and holiday gifts.

LET US FIX YOUR WORN FURS

fashion, repair and reshape them if needed. Furs are very light weight, therefore it would **cost but little** to send them in to us by Parcel Post **for our estimate of cost,** then we will hold them aside awaiting your decision. Any estimate we make calls for **our best work.**

Our illustrated catalog and style book combined gives a lot of useful information. It tells how to take off and care for hides. About **our safe dyeing process** on cow and horse hides, calf and fur skins. About dressing fine fur skins and making them into neckpieces, muffs and garments. About our **sharp reduction in manufacturing prices.** About Taxidermy and Head Mounting.

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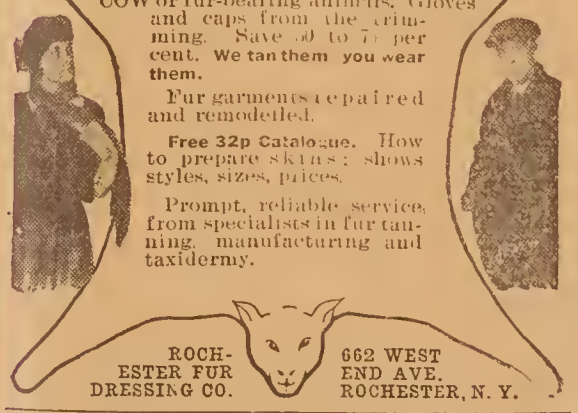
WE TAN THEM—YOU WEAR THEM
—YOUR OWN HORSE AND COW HIDES



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Prompt, reliable service from specialists in fur tanning, manufacturing and taxidermy.

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4 LACE CURTAINS FREE for selling only 30 packs vegetable or flower seeds (mention which) at 10c large pack. Handsome 31-piece Blue Bird Dinner Set given according to plan in catalog. Send no money. **American Seed Co., Lancaster, Pa. Box M. 19,**

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Cut out and mail this ad to us with your name and address—send no money—and we will send you this fine Razor for 30 days' FREE trial. When satisfied after using, send $1.95 or return razor. Order today.

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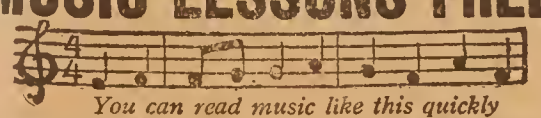

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Breeders Endow Stanchions

One of the Features at Pennsylvania Farmers' Week

THE first Winter Farmers' Week since February, 1919, was held at the Pennsylvania State College the week of December 18. The registration of farmers and others interested in agriculture, placed the attendance at the 200 mark for this winter event. College officials in charge of the program gauged its success on the enthusiasm, rather than the number of those who participated in the numerous instructional features. Bad roads and the approach of the holiday season were advanced as the main factors responsible for the deficiency in attendance.

From the list of 150 discussions, demonstrations, and lectures that the agricultural school offered the farmer-visitors to Penn State, several meetings stand out more prominently than others. The greatest interest in any division was generally to be found in that group which satisfied the farmer's appetite for information on the use of better methods in the distribution of his products. Discussions on marketing, economics, better management practices and the most recent developments in livestock production, dairying, crop raising, fruit and vegetable growing, poultry management and farm engineering, found the farmer attentive and keen for an open forum with authorities on the various subjects.

Dairymen Endow Stanchions

If special prominence is to be assigned to any one event on the three-day program, it is that in which 26 enterprising Pennsylvania dairy farmers and associations, each presented the Pennsylvania State College with a pure-bred cow or heifer, selected from among the best individuals in each herd. Last summer, prominent dairymen launched a campaign to "Endow an Empty Stanchion at State College" in an effort to rebuild the college dairy herd, which was severly cut down in quantity and quality as a result of tuberculosis in 1915.

On Dairy Breeders' Field Day, the cattle were exhibited in the live-stock judging pavilion. Of the entire group on exhibit, there were 14 Holsteins, 6 Ayrshires, 5 Jerseys, and one Guernsey. All of them displayed splendid breed type and gave every indication that they would be a great credit to the college herd. The most interesting picture of the ceremony was that in which Mary Josephine McBracken, a fourteen-year old high school girl, delivered her pet three-year old heifer, Pollyanna Segis DeKol, into the keeping of the college dairy officials. This little Miss easily commanded every gaze as she tripped unhesitatingly through her choicely-worded speech, one which seemed to typify the spirit that prompted each donor to give one of his cows to the college.

Program Exceptionally Good

The dairy program in its entirety was exceptionally good. State Secretary of Agriculture, Fred Rasmussen, at one time in charge of Penn State's dairy department, told the farmers what the future held in store for the dairy industry. H. H. Wing, of Cornell University, and J. C. McDowell, of the federal division, also spoke on important developments in the fields of dairying.

Some of the meetings in each division of the farm sessions earned the distinction of particular merit. The talk on mineral feeds for live stock, by Dr. E. B. Forbes, director of the Institute of Animal Nutrition, threw light on a subject with which most farmers are as yet quite unfamiliar. Recent developments in nutrition, as portrayed in a series of lantern-slides and a discussion, by R. A. Dutcher, was another lecture hour that attracted a large crowd.

Future Must Be Bright

(*Continued from page* 2)

ested care. As the farm we are going on is one that has not been properly farmed for about fifteen years, and also as we are going there in debt for every item we will need for a start, the future has just naturally got to look bright to us.

We feel sure that sooner or later, if the farmers can only hold out, co-operation will win and give us all a chance at a little enjoyment after the long strife. Surely with any fair show at all, the farmers should make good. When the very many advantages of country life are considered we are certain that we can do better there than at anything else, even though at present our assets are merely youth, fair health and strength, and a desire to make a real home for ourselves and our boys where they can grow up naturally. "It is always darkest just before dawn," you know. Your paper will always be a member of our family, as it seems as if it would be impossible to get along without it.—Maybelle Robert, Franklin Co.

Health is Fundamental to Happiness

(*Continued from page* 3)

Terminal Building, located in New York City.

The women who helped the survey learned much about the health conditions in the schools of the State. If you were one of them you found that the healtn conditions of your school depends on public opinion in your community. If you were not one of these women, put on your hat and coat now, and walk down the snowy road to your schoolhouse. Find out about the place your children live in when they are away from home, what they are taught about health, and whether this teaching really makes them want to practice the health habits. Then tell your Women's Club or your Parent-Teacher's Association, or your church, or your neighbor what you have found out and what you think should be done, and work with them to do it.

Printed Programs Will Help

If you would like help on deciding how to go about it, the Child Health Organization of America, 370 Seventh Avenue, New York, has published a pamphlet for your guidance on "A School Health Program for Parent-Teacher's Associations and Women's Clubs." It contains a definite plan of action, with programs for meetings and a complete list of references for papers or discussions. A regular boy, called Jack Belden, also appears in the booklet, and tells in letters and pictures what he thinks of health teaching. This same Jack "listened in" on the women who came to call on his teacher during the School Health Survey, and this is what he wrote to his cousin Jim:

"Dear Jim:

"Mrs. Martin came to our school today to see Miss Bell. She is the wife of Mr. Martin. He let Bud and me come in his orchard and pick up apples. Well, this Mrs. Martin asked Miss Bell a whole lot of questions, all about whether it was a good school for our health. She didn't stick Miss Bell once. Only, of course, she could see for herself, anyway, whether we were healthy or not, and the floor clean and the windows open. Well, all us kids hoped she'd keep on asking questions till it was time for 'rithmetic to be over, but pretty soon she stopped and said: 'This is such a fine school, I don't suppose you need anything, do you, Miss Bell?' and then everyone yelled at once, because just yesterday Miss Bell made us rite a composition on 'what our school needs,' and when you know the answer to a question you almost burst if you can't tell it.

"Well, Mrs. Martin had to put her hands over her ears, and Miss Bell laffed and said she would send our compositions to the Wimmins Club. As for her, she said the thing the school needed most was the interest and help of the hole town, and then it would turn us out good and healthy, and be a credit to it. So then Mrs. Martin left and there was enough time left of the 'rithmetic class for Miss Bell to find out I didn't know my lesson. The wimmin are on their job in *this* town, Jim, I'll tell the world."—Grace T. Hallock and Anna L. Sworts, of the Child Health Organization.

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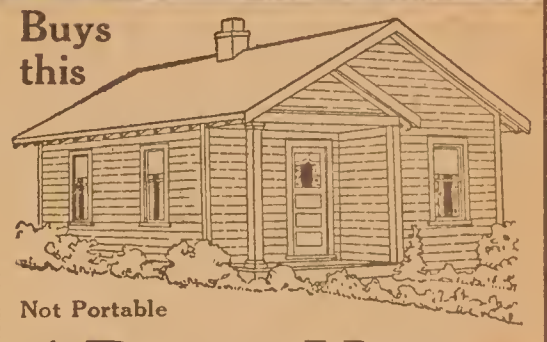

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The Valley of the Giants—*By Peter B. Kyne*

WHEN Bryce Cardigan, son of a pioneer in the redwoods country, comes home to Scquoia from college, he finds his father, now almost blind, engaged in a struggle against an aggressive newcomer, Colonel Pennington. Bryce, who has started a friendship with the Colonel's niece, Shirley Sumner, vows to rescue his father's business and especially to preserve the Valey of the Giants, a magnificent grove where his mother is buried, and which, because it blocks the Colonel's holdings, is menaced by the new operator.

On his first visit to the Valley of the Giants, he discovers that the noblest tree has been wantonly cut down for the burl, and that in falling, it has destroyed his mother's grave. An envelope with the name of Jules Rondeau proves that Pennington's woods-boss was the vandal. At Shirley's invitation Bryce has dinner with her and the Colonel, and conveys to the latter that he knows who stole the burl.

"I DID not expect you to agree to my request. I am not quite that optimistic," Bryce replied.

"Then why did you ask me?"

"I thought that possibly you might have a reasonable counter-proposition."

"I haven't thought of any."

"I suppose if I agreed to sell you that quarter-section of timber in the little valley over yonder" (he pointed to the east) "and the natural outlet for your Squaw Creek timber, you'd quickly think of one," Bryce suggested pointedly.

"No, I am not in the market for that Valley of the Giants, as your idealistic father calls it. Once I would have purchased it for double its value, but at present I am not interested."

"Nevertheless it would be an advantage for you to possess it."

"My dear boy, that is an advantage I expect to enjoy before I acquire many more gray hairs. But I do not expect to pay for it."

"You figure you've got us winging, eh?" Bryce was smiling pleasantly.

"I am making no admissions," Pennington responded, "—nor any hauling contracts for my neighbor's logs," he added.

"You may change your mind."

"Never."

"I suppose I'll have to abandon logging in Township Nine and go back to the San Hedrin," Bryce sighed resignedly.

"If you do, you'll go broke. You can't afford it. You're on the verge of insolvency this minute."

"I suppose, since you decline to haul our logs, after the expiration of our present contract, and in view of the fact that we are not financially able to build our own logging railroad, that the wisest course my father and I could pursue would be to sell our timber in Township Nine to you."

"I had a notion the situation would begin to dawn upon you." The Colonel was smiling now. "I'll give you a dollar a thousand feet stumpage for it."

"On whose cruise?"

"Oh, my own cruisers will estimate it."

"I'm afraid I can't accept that offer. We paid a dollar and a half for it, and if we sold it to you at a dollar, the sale would not bring sufficient money to take up our bonded indebtedness; we'd only have the San Hedrin timber and the Valley of the Giants left, and since we cannot log either of these at present, naturally we'd be out of business."

"That's the way I figured it, my boy."

"Well—we're not going out of business."

"Pardon me for disagreeing with you. I think you are."

"Not much! We can't afford it."

THE Colonel smiled benignantly. "My dear boy, listen to me. Your father is the only human being who has ever succeeded in making a perfect monkey of me. When I wanted to purchase a right of way through his absurd Valley of the Giants to log my Squaw Creek timber, he refused. And to add insult to injury, he spouted a lot of rot about his big trees, how much they meant to him, and the utter artistic horror of running a logging-train through the grove—particularly since he planned to bequeath it to Sequoia as a public park.

"My boy, that was the first bad break your father made. His second break was his refusal to sell me a mill site. He had been shrewd enough to hog all the water-front real estate and hold onto it. I remember he called himself a progressive citizen, and when I asked him why he was blocking the wheels of progress, he replied that the railroad would build in from the south some day, but that when it did, its builders would have to be assured of terminial facilities on Humbolt Bay. 'By holding intact the spot where rail and water are bound to meet,' he told me, 'I insure the terminal on tidewater which the railroad must have before consenting to build. But if I sell it to Tom, Dick, and Harry, they will be certain to gouge the railroad when the latter tries to buy it from them. They may scare the railroad away.'"

"Naturally!" Bryce replied. "The average human being is a hog, and merciless when he has the upper hand. My father, on the contrary, has always planned for the future. The country needed rail connection with the outside world, and moreover his San Hedrin timber isn't worth a hoot until that feeder to a trans-continental road shall be built to tap it."

"But he sold Bill Henderson the mill site on tidewater that he refused to sell me, and later I had to pay Henderson's heirs a whooping price for it."

"But he needed Henderson then. They had a deal on together. You must remember, Colonel, that while Bill Henderson held that Squaw Creek timber he later sold you, my father would never sell him a mill site. Can't you see the sporting point of view involved? My father and Bill Henderson were good-natured rivals; for thirty years they had tried to outgame each other on that Squaw Creek timber. They were perfectly frank about it with each other and held no grudges. Of course, after you bought Henderson out, you foolishly took over his job of trying to outgame my father. That's why you bought Henderson out, isn't it? You had a vision of my father's paying you a nice profit on your investment, but he fooled you, and now you're peeved and won't play."

Bryce hitched his chair farther toward the Colonel. "Why shouldn't my dad be nice to Bill Henderson after the feud ended?" he continued. "They could play the game together then, and they did. Colonel, why can't you be as sporty as Henderson and my father?"

"I will not renew your logging contract. That is final, young man. No man can ride me with spurs and get away with it."

"Oh, I knew that yesterday."

"Then why have you called on me to-day, taking up my time on a dead issue?"

"I wanted to give you one final chance to repent. I know your plan. You have it in your power to smash the Cardigan Redwood Lumber Company, acquire it at fifty per cent of its value, and merge its assets with your Laguna Grande Lumber Company. In order to achieve your ambitions, you are willing to ruin a competitor: you decline to play the game like a thoroughbred."

"I PLAY the game of business according to the rules of the game; I do nothing illegal, sir."

"And nothing generous or chivalrous."

"Young man, remember, you are not in a position to ask favors."

"Then I suppose we'll have to go down fighting?"

"I do not anticipate much of a fight."

"You'll get as much as I can give you."

"I'm not at all apprehensive."

"And I'll begin by running your woods-boss out of the country."

"Ah-h!"

"You know why, of course—those burl panels in your dining room. Rondeau felled a tree in our Valley of the Giants to get that burl for you, Colonel Pennington."

Pennington flushed. "I defy you to prove that," he almost shouted.

"Very well. I'll make Rondeau confess; perhaps he'll even tell me who sent him after the burl. At any rate, I *know* Rondeau is guilty, and you, as his employer and the beneficiary of his crime, must accept the odium."

The Colonel's face went white. "I do not admit anything except that you appear to have lost your head, young man. However, for the sake of argument: granting that Rondeau felled that tree, he did it under the apprehension that your Valley of the Giants is a part of my Squaw Creek timber adjoining."

"I do not believe that. There was malice in the act—brutality even; for my mother's grave identified the land as ours, and Rondeau felled the tree on her tombstone."

"If that is so, and Rondeau felled that tree—I do not believe he did—I am sincerely sorry, Cardigan. Name your price and I will pay you for the tree."

"You can't pay for that tree," Bryce burst forth. "No pitiful human being can pay in dollars and cents for the wanton destruction of God's handiwork. You wanted that burl, and when my father was blind and could no longer make his Sunday pilgrimage up to that grove, your woods-boss went up and stole that which you knew you could not buy."

"That will be about all from you, young man. Get out of my office. And by the way, forget that you have met my niece."

"It's your office—so I'll get out. As for your second command"—he snapped his fingers in Pennington's face—"fooey!"

When Bryce had gone, the Colonel hurriedly called his logging-camp on the telephone and asked for Jules Rondeau, only to be informed that Rondeau was up in the green timber and could not be gotten to the telephone in less than two hours.

"Do not send for him, then," Pennington commanded. "I'm coming up on the eleven-fifteen train and will talk to him when he comes in for his lunch."

Just as the Colonel was leaving to board the logging-train bound empty for the woods, Shirley Sumner made her appearance in his office.

"Uncle Seth," she complained, I'm lonesome. The bookkeeper tells me you're going up to the logging-camp. May I go with you?"

"By all means. Usually I ride in the cab with the engineer and fireman; but if you're coming, I'll have them hook on the caboose. Step lively, my dear, or they'll be holding the train for us and upsetting our schedule."

CHAPTER XV

BY virtue of their logging-contract with Pennington, the Cardigans and their employees were transported free over Pennington's logging railroad; hence, when Bryce Cardigan resolved to wait upon Jules Rondeau in the matter of that murdered Giant, he chose the most direct route, and as the long string of empty trucks came crawling off the Laguna Grande Lumber Company's log-dump, he swung over the side, quite ignorant of the fact that Shirley and her precious relative were riding in the little caboose in the rear.

At twelve-ten the train slid in on the log landing of the Laguna Grande Lumber Company's main camp, and Bryce dropped off and approached the engineer of the little donkey-engine used for loading the logs. "Where's Rondeau?" he asked.

The engineer pointed to a huge, swarthy man approaching across the clearing. "That's him," he replied. And without further ado, Bryce strode to meet his man.

"Are you Jules Rondeau?" he demanded as he came up to the woods-boss. The latter nodded. "I'm Bryce Cardigan," his interrogator announced, "and I'm here to thrash you for chopping that big redwood tree over in that little valley where my mother is buried."

"Oh!" Rondeau smiled. "Wiz pleasure, M'sieur." And without a moment's hesitation he rushed. Bryce backed away from him warily, and they circled.

"When I get through with you, Rondeau," Bryce said distinctly, "It'll take a good man to lead you to your meals. This country isn't big enough for both of us, and you've got to go first."

Bryce stepped in, feinted for Rondeau's jaw with his right, and when the woods-boss quickly covered, ripped a sizzling left into the latter's midriff. Rondeau grunted and dropped his guard, with the result that Bryce's great fists played a devil's tatto on his countenance before he could crouch and cover.

"This is a tough one," thought Bryce. His blows had not, apparently, had the slightest effect on the woods-boss. Crouched low and with his arms wrapped around his head, Rondeau still came on unfalteringly.

Already word that the woods-boss was battling with a stranger had been shouted into the camp dining room, and the entire crew, came pouring forth to view the contest. Out of the tail of his eye Bryce saw them coming, but he was not apprehensive, for he knew the code of the woodsmn: "Let every man roll his own hoop." It would be a fight to a finish, for no man would interefere; striking, kicking, gouging, biting, or choking would not be looked upon as unsportsmanlike; and as Bryce backed cautiously away from the huge and powerful man before him, he realized that Jules Rondeau was, as his father had stated, "top dog among the lumberjacks."

RONDEAU, it was apparent, wanted a rough-and-tumble fight and kept rushing, hoping to clinch; if he could but get his great hands on Bryce, he would wrestle him down and finish the fight in jig-time. But a rough-and-tumble was exactly what Bryce was striving to avoid; hence when Rondeau rushed, Bryce side-stepped and peppered the woodsman's ribs. But the woods-crew, which by now was ringed around them, began to voice disapproval of this style of battle.

"Clinch with him, dancing-master," a voice roared.

"Tie into him, Rondeau," another shouted.

"It's a fair match," cried another. The red one was looking for a fight, an' he ought to get it; but these fancy fights don't suit me. Flop him, stranger, flop him."

A fourth jeered. "He's a foot-racer, not a fighter."

Suddenly two powerful hands were placed between Bryce's shoulders, and he was propelled violently forward until he collided with Roudeau. With a bellow of triumph, the woods-boss's gorilla-like arms were around Bryce, swinging him until he faced the man who had forced him into that terrible grip. This was no less a personage than Colonel Seth Pennington, and it was obvious he had taken charge of what he considered the obsequies.

"Stand back, you men, and give them room," he shouted. "Rondeau will take care of him now. I'll discharge the man that interferes."

With a heave and a grunt Rondeau lifted his antagonist, and the pair went crashing to the earth together, Bryce underneath. And then something happened. With a bowl of pain, Rondeau rolled over on his back and lay clasping his left wrist in his right hand, while Bryce scrambled to his feet.

"The good old wrist-lock does the trick," he announced; and stooping, he grasped the woods-boss by the collar with his left hand, lifted him, and struck him a terrible blow with his right. But for the arm that upheld him, Rondeau would have fallen. Jerking the fellow toward him, Bryce passed him arm around Rondeau's neck, holding the latter's head as in a vise with the crook of his elbow. And then the batteries started. When it was finished, Bryce let his man go, and Rondeau, bloody, sobbing, and semi-conscious, sprawled on the ground.

Bryce bent over him. "Now," he roared, "who felled that tree in Cardigan's Redwoods?"

"I did, M'sieur." The words were a whisper.

"Did Colonel Pennington suggest it to you?"

"He want ze burl. By gar, I do not want to fell zat tree———"

"That's all I want to know." Stooping, Bryce seized Rondeau by the nape of the neck and the slack of his overalls, lifted him shoulder-high and threw him, as one throws a sack of meal, full at Colonel Pennington.

"You threw me at him. Now I throw him at you. You thieving, hypocritical scoundrel, if it weren't for your years and your gray hair, I'd kill you."

The helpless hulk descended upon the Colonel's expansive chest and sent him crashing earthward. Then Bryce turned to face the ring about him.

"Next!" he roared. "Singly, in pairs, or the whole pack!"

"Mr. Cardigan!"

He turned. Colonel Pennington's breath had been knocked out of his body by the impact, and he lay gasping like a hooked fish. Beside him Shirley Sumner was kneeling, her hands clasping her uncle's, but with her violet eyes blazing fiercely on Bryce Cardigan.

"How dare you?" she cried. "You coward! To hurt my uncle!"

He gazed at her a moment, fiercely, defiantly, his chest rising and falling from his recent exertions, his knotted fists gory with the blood of his enemy. Then the light of battle died, and he hung his head. "I'm sorry," he murmured, "not for his sake, but yours. I didn't know you were here."

"I'll never speak to you again so long as I live," she burst out passionately.

He stood gazing down upon her. Her angry glance met his unflinchingly; and presently for him the light went out of the world.

"Very well," he murmured. "Goodbye." And with bowed head he turned and made off through the green timber toward his own logging-camp five miles distant.

CHAPTER XVI

WITH the descent upon his breast of the limp body of his big woodsbully, Colonel Pennington had been struck to earth as effectively as if a fair-sized tree had fallen on him. To complete his withdrawal from active service, the last whiff of breath had been driven from his lungs; and for the space of a minute, during which Jules Rondeau lay heavily across his midriff, the Colonel was quite unable to get it back. Pale, gasping, and jarred from soul to suspenders, he was merely aware that something unexpected and disconcerting had occurred.

While the Colonel fought for his breath, his woodsmen remained in the offing, paralyzed into inactivity; then Shirley motioned to them to remove the wreckage, and they hastened to obey.

Freed from the weight, Colonel Pennington stretched his legs, rolled his head from side to side, and snorted violently several times. After the sixth snort he felt so much better that a clear understanding of the exact nature of the catastrophe came to him; he struggled and sat up, looking around a little wildly.

"Where—did—Cardigan—go?" he gasped.

One of his men pointed to the timber into which the enemy had just disappeared.

"Surround him—take him," Pennington ordered. "I'll give—a month's pay—to each of—the six men that bring—that scoundrel to me. Get him—quickly! Understand?"

Not a man moved. Pennington shook with fury. "Get him," he croaked. "There are enough of you to do—the job. Close in on him—everybody. I'll give a month's pay to—everybody."

(*Continued next week*)

And She Is Still Walking

It has been figured out that a farm woman in the United States living on the same farm for fifty years has walked 5,710 miles to and from the well and has carried nearly 2,000 tons of water, according to a report from Ohio extension service. It would have cost only $18 to extend a pipe from the well and put a pump in the kitchen.

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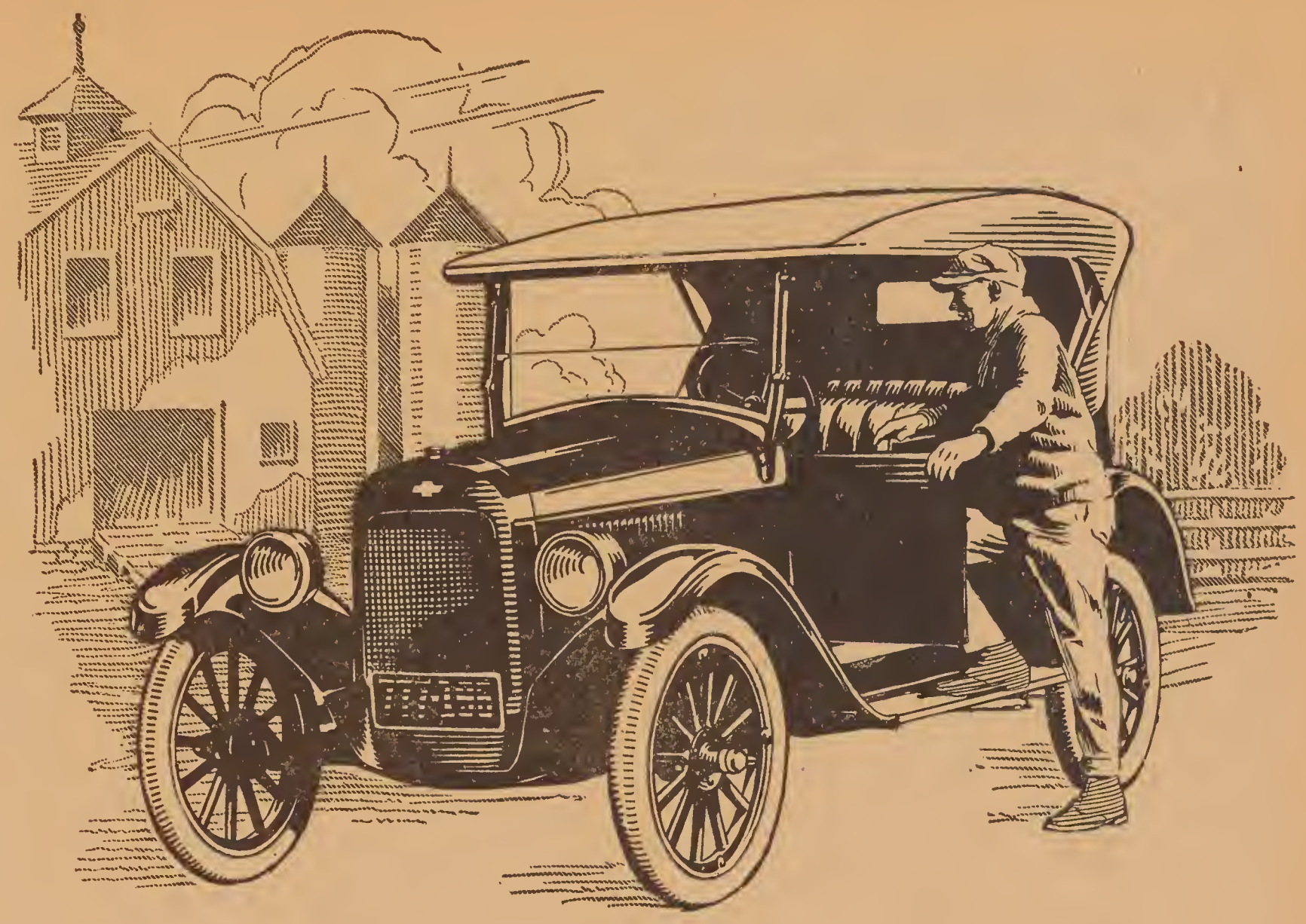

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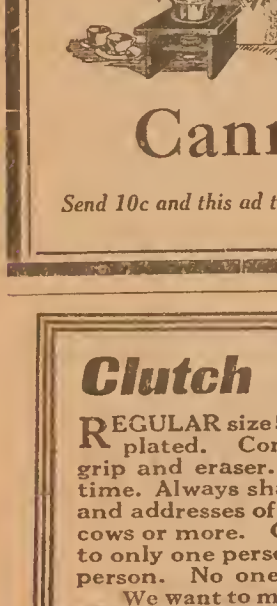

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Ben—A "Cat-Tale"

And Some Sensible Hints for First Aid at Home

A few weeks ago American Agriculturist started to tell the story of Ben, the famous mouse catcher, belonging to Mrs. Ida A. Brown whose stories of animals have interested all our readers. You will remember that we left Ben sitting on a barrel full of mice trying to hold about six which he had covered at his first jump.

THEN we looked at that darling cat. He sat perfectly rigid, not daring to stir for fear of losing one of these mice. His eyes, which were very large anyhow, simply bulged right out of his head. We laughed as hard as we could, but we helped him by taking the mice out one at a time from under each foot and killing them. As we took them he began to look relieved, and when he had just the one in his mouth left he soon finished him. Such a lot of mice as there were all over the sides of that box! It was enough to make any ambitious cat frantic, especially to see so many getting away.

Ben Harrison loved music and when my sister played and sang he would hurry on a trot, climb into her lap, put a front paw on each of her shoulders and look up into her face, with the most angelic look on his face you ever saw. He was always completely charmed with the music. Now Ben could do several tricks. He could jump over your clasped hands held quite high. He would shake hands and roll over, and at meal times, just as we would start eating, all at once in would run Ben. Then he would chase his tail round and round until he would be so dizzy that he would stagger around with his big eyes bulging out. When some of us would say, "Oh, see Ben! Isn't he cute!" he would stop and purr, as pleased as could be.

Well, we moved from there one day, and Ben never seemed to like the new place. He often went back where we had lived and once had quite an adventure.

The Wrong Cow in the Stable

In our old barn was a ladder which went straight up the side into the hayloft. It had flat rungs, instead of the usual round ones. At the foot of that ladder were the stables and stanchions for the cows, and just in the first stanchion on the right always stood a large gentle red Durham cow. This cow and Ben were great friends. Ben would come down the ladder backwards, very carefully. The rungs were quite close together and he came down easily. When he was almost down, he would turn and jump in Red's feed box, and from there onto her back. She never seemed to mind him a particle, but ate serenely on. He would sit there and wash his face, then jump down by the side of the man who was milking her and he would milk a little stream slowly into Ben's wide-open mouth. He would soon get enough and step away and wash up.

Now comes the most exciting part of my story. The people who moved there after we left had just such a looking cow as we had, and she was just put in that stanchion as luck would have it, and, of course, she did not know of Ben Harrison or of his habits either. Well, one morning Mr. Lane was milking and had a pail nearly full. Ben Harrison came down that ladder as usual, jumped into the feedbox and on that cow's back. When whiz, bang! away went Mr. Lane's pail of milk, and the cat, too. When things calmed down a little Mr. Lane got to his feet and picked up a perfectly demoralized milk pail. He looked around and there sat Ben soaked in warm milk, and pawing out his eyes with first one paw and then the other.

Mr. Lane sat down and laughed until the tears came. He took it like a sport and never held any grudge against Ben. When he told us about it the next day, we explained why Ben did such mischief. But they said that when Ben came back to visit he never came near that cow again. He had learned from experience, which humans do not always do!

FOREIGN BODIES IN THE FLESH

ALICE M. SMITH, M. D.

Before attempting to remove a foreign body from the flesh, cleanse the part with some good disinfecting solution, as soap well diluted with water, and boiled until sterile. If this is impractical, the wound may be thoroughly cleansed after the substance is removed. A good treatment is to apply tincture of iodine, or a strong solution of baking soda made with boiling water, cooled, and the injured part soaked in it while as hot as can be borne, and afterwards wrapped up in dressing made of clean gauze, or absorbent cotton. Then bandage carefully. The painting of the wound with iodine for a small puncture is the simplest method of treatment.

For home treatment, a penknife, needle or other sharp-pointed instrument may be cleansed by passing back and forth through a lamp or candle, or match-flame, until danger from infection from their use is eliminated, and then used to remove the foreign body. The needle makes a very good probe when the object has penetrated deeply into the skin or below it. Introduce the point into the opening and gently move it about until it clicks against the foreign body. Its location thus determined, it becomes easy to remove the offending object without unnecessary injury to the tissues.

Another method of extracting a thorn, needle or splinter from the flesh is to apply steam. This is done by nearly filling a wide-mouthed bottle with hot water, then pressing the injured part down over the mouth of the bottle, holding it there for a few minutes. The steam should loosen the foreign body and bring it to the surface, after which it may be easily extricated.

Should this method fail, the wound should be incised to the extent of thoroughly exposing the foreign body and every fragment removed. This is preferably the work of a physician, and it naturally follows that such a wound should have sterile dressing to protect it from becoming infected.

To Keep Hands From Chapping

The following is an excellent remedy for chapped hands and face and a good preventive as well. Add five cents worth of tincture of benzoin and five cents worth of glycerine to a pint of water (rain water is best). Moisten the hands with this at night when retiring and as often as convenient during the day. Loose mittens made of white outing flannel worn at night are also a great help in the care of hands. I find it not advisable to use glycerine alone. It seems to be too strong and reddens and thickens the skin unless properly diluted. When thin it has the opposite and desired effect.—(Mrs. W. H. H., Virginia.

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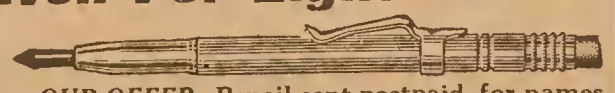

REGULAR size 5 inches long, nickel plated. Complete with pocket grip and eraser. Should last a life time. Always sharp and ready for use. *OUR OFFER*: Pencil sent postpaid, for names and addresses of eight farmers, living anywhere in the United States, each having five cows or more. Give correct names and addresses. Write plainly. This offer is open to only one person in each family. Only one list of eight names wanted from each person. No one person may receive more than one pencil.

We want to make these folks a very attractive proposition, and will make you the same offer if you want it.

***The Dairy Farmer*, E.T.Meredith, Pub., 11 Success Bldg., Des Moines, Ia.**

New Lamp Invention Beats Electricity

Beautiful Lamp Gives 400 Candle Power For Less Than ½ Cent A Night

Any home may now have the benefits of electric lights at practically no cost through the remarkable invention of B. J. Davis, a Kansas City expert mechanic.

This amazing invention, called the Economy Lamp, is beautifully designed and an ornament to any home. There is no wick, chimney or odor. It lights instantly and gives more light than 20 electric light bulbs, 27 lamps or 400 candles at a cost of less than ½ cent a night. It is so simple, a child can operate it with perfect safety and carry it anywhere.

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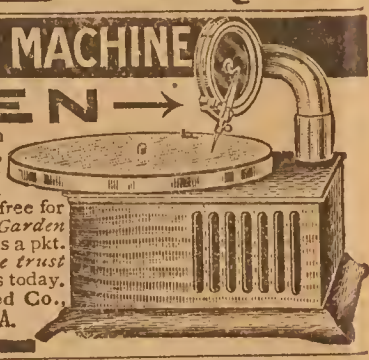

A real machine which reproduces talking, singing and dance music. Guaranteed lots of fun. Given free for selling only 30 pkts. *Garden Spot Seeds* at 10 cents a pkt. *Send no money—we trust you.* Write for seeds today. **Lancaster Co. Seed Co., Sta. 102, PARADISE, PA.**

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Handsome, guaranteed time keeper, given for selling only 40 packs of vegetable or flower seeds (mention which) at 10c per large pack. Easily sold—**EARN BIG MONEY OR PREMIUMS.** Get sample lot today. Send no money. **We trust you** till seeds are sold.

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Designs for Winter Sewing

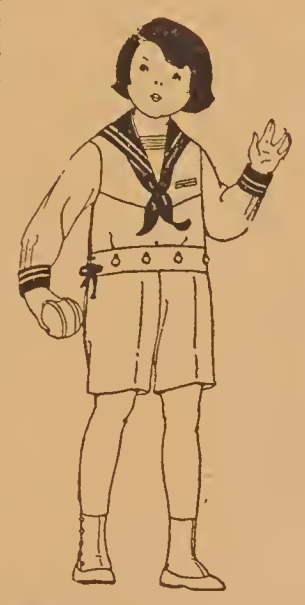
And Some Unusual Recipes for the Lowly Potato

THE sailor suit has become a staple both for boys and girls, although the girls seem to have adopted the straight middy blouse for their own. The patterns chosen this week illustrate an everyday middy with pleated skirt for the girl and a smart little suit with the regulation big collar and band trimming for the boy.

The skirt of the two-piece middy dress is joined to an underwaist. This is especially good for school and separate middies, in wash materials, may be made for all-the-year round wear.

No. 1300 cuts in sizes 4 to 14 years. Size 8 requires 1⅝ yards 36-inch material for blouse and 2 yards 36-inch material for skirt, collar and cuffs. Price 12 cents in stamps.

Every small boy has a hankering for things nautical, and the youngster who gets this suit will feel like a regular sailor lad. Although they may be omitted, the applied yoke and shield of the blouse, the white braid, the tailored pocket and the lacing, all make the little suit just like a sailor's uniform. Either cloth or wash goods can be made up effectively in this style.



No. 1540 cuts in sizes 2, 4, 6 and 8 years. Size 4 requires 1½ yards 36-inch material with ½ yard 22-inch contrasting and 3¼ yards braid. Price 12 cents in stamps.

To Order: Write name and address, number of pattern and size very plainly. Enclose 12 cents in stamps for each pattern ordered. Send orders to the Fashion Department, American Agriculturist, 461 4th Avenue, New York City.

Our Fall and Winter Book of Fashions is still obtainable. It will be sent upon receipt of 10 cents. Address your order to the Fashion Department.

THE PROPER CARE OF SHOES

HARRY J. BURKE

Every woman likes to have her shoes suit her costume, and certainly, the comfortable low-heeled walking shoe meant for the street would look grotesque on the ballroom floor. There must be a sufficient number of shoes in the closet, but there is also such a thing as making them last as long as possible.

In the first place keep them away from heat, which takes the resiliency from the leather. It is a mistake to place wet shoes near a fire or radiator. They should be allowed to dry slowly, and one of the simplest ways to do this is to stuff them tightly with crumbled newspaper, leaving them lying on their sides until dry. The paper not only absorbs the moisture, but helps to retain the shape and prevents shrinking. Farmers recognize this by pouring grain, usually heated a trifle, into their boots when they come in from soaked fields.

It is a good practice to waterproof the soles of house and street shoes by allowing them to stand overnight in a saucer of oil. Some persons varnish the soles of their shoes periodically. Polishing a new pair of shoes before they are worn keeps them in condition longer, but use paste rather than the liquid application for regular treatment. The liquid application, though convenient for emergency use, or for the heels, sometimes causes the leather to crack as it lacks the softening qualities of oil paste. Two parts of olive oil to one part of milk is a good, homemade dressing for any leather article, whether shoes, belts, bags, or gloves. A reliable brand of furniture polish often makes the best dressing for tan shoes.

For suede, an emery board is recommended but if not obtainable, a stiff brush will suffice.

NOVEL POTATO RECIPES

NELLE PORTREY

During the winter, when, with many of us, the potato is the only fresh vegetable, the good cook is ever on the alert for new ways of serving it. The potato is no longer merely served creamed for a holiday dish or boiled, with gravy, for every-day meals. The recipes given below all have the virtue of being "tried and true," yet novel ways of using the favorite American vegetable.

Browned Potatoes

This is a popular way of serving potatoes; popular with men because they are certainly delicious, and popular with women because the very small potatoes may be used in this way, although if there are no small ones, larger ones may be cut in pieces about 1½ inches across.

After the potatoes are peeled and cut in the right size, boil them in salted water until nearly soft. Drain and fry in deep fat till well browned. Sprinkle with salt and serve hot.

Potato Puff

Mash 2 cups of hot, boiled potato and add the beaten yolk of an egg. Stir well and add ½ cup of rich milk, a teaspoon of salt and butter the size of an egg. Beat till light and creamy and fold in the beaten white of an egg. Put in a baking dish and dot with bits of butter. Bake till lightly browned and serve hot.

Potato Omelet

Add 6 eggs to 1 cup of mashed potatoes. Beat well and add 1 teaspoon salt, 1 teaspoon flour, 1 pint of milk, and ¼ teaspoon baking powder. Pour in a hot, buttered skillet and bake till brown in a very quick oven. Serve hot.

Potato Gems

To 1 cup of mashed potatoes add 2 eggs, 2 teaspoons baking powder, 1 teaspoon salt, 3 tablespoons lard or other shortening and 1 cup of sweet milk. Mix thoroughly and add enough flour to make a stiff batter. Drop in greased gem pans and bake in a quick oven. Serve hot with butter.

Potato Biscuit

Sift 2 cups of flour with 1 teaspoon salt and 3 teaspoons baking powder. Into this rub a heaping teaspoon shortening. Into the flour mixture rub a cup of mashed potatoes. Add enough cold sweet milk to make the mixture cling together. Place on a floured board and without kneading, roll to a thickness of about one-third inch. Place in floured biscuit tins and bake in a moderate oven. Potato biscuits should not be baked in as hot an oven as plain flour biscuits.

To keep raisins from sinking in a cake or bread, they may be creamed with the butter, then the sugar added, and the regular process of bread or cake-making proceeded with in the usual order. The cake or bread will be darker and richer looking when this method is employed.

A dressing of two parts of beeswax to one part of mutton fat melted together will make shoes as nearly "waterproof" as it is possible to make them. Apply at night and wipe well next morning with a piece of flannel.

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Reviewing the Latest Eastern Markets and Prices

APPLE MARKET CONTINUES DULL

BOXED apple receipts at New York still greatly exceed barrel apple receipts. The market for barrels continues dull. Fancy colored stock met a fairly steady demand at New York, but demand was light for ordinary. Receipts were 160 cars less last week than the week previous. Out of 304 cars received, 176 were boxed from the West and 112 were barreled from New York State.

F. O. B. sales at Rochester were very limited. British markets are weaker. Up to December 16 exports this season totaled 1,000,771 barrels and 1,802,272 boxes.

Because of the heavy stocks in storage, the future of the market is very uncertain.

The following were wholesale prices per barrel at New York, December 27:

APPLES	Best	Fancy	Ordinary
Baldwin..	$4.75@5	$5.25@5.50	$4 @4.50
Greening..	4.50@4.75	5	3.75@4.25
McIntosh.	7.50@8	8.25@8.50	6.50@7
Northern Spy	5.50@6	6.25@6.50	4.50@5
Ben Davis	3 @3.25	3.50@3.75	2.50@2 75

Potatoes Tend to Move More Freely

Reports from various shipping points indicate that there was a tendency for potatoes to move more freely in the country last week. In up-State New York the general price paid to farmers seemed to be about 45 cents per bushel, with some higher offers. A cold snap in the next two or three weeks would undoubtedly cause a higher market, as it would check shipments from northern sections and quicken demand.

Long Island Green Mountains continued to sell at $1 per bushel f. o. b. in limited quantities, but in general the market was about 90 cents per bushel, which is higher than the situation of supply and demand would seem to warrant.

Maine potatoes sold after Christmas at about $1.25 per cwt., delivered at Harlem yards, and $1.30 per cwt., delivered at 33rd Street. These moved to retailers and jobbers at about $2.85 per 180 pounds bulk.

New Bermuda potatoes are now in the market in sufficient quantities to bring the top price down to $10 per barrel, although the first shipments brought $15.

The Michigan Potato Growers' Association is taking the initiative in calling a conference of potato shippers and growers for January 15 at Sherman Hotel, Chicago, to consider the problem of marketing this year's enormous crop. The situation calls for the most profound study and analysis, they state. One prominent potato man claims that restaurants charge too much and chain stores too little for potatoes, and that the jobber must be encouraged with a wider margin than he is now getting, or he will discontinue handling potatoes this season, greatly handicapping distribution.

Receipts of potatoes at New York in week, there was a slightly better decars, of which 79 came from Long Island and 61 from up-State New York.

Sweet Potatoes—During the last week there was a slightly better demand for New Jersey sweet potatoes, owing to the absence of barreled Virginia sweets. Some fancy graded stock went up to $1.50 per bushel hamper, but most Jerseys sold at 60 cents to $1.25, depending on quality. The Ocean County New Jersey Sweet Potato Growers' Cooperative Association made its first shipment of graded sweets to the New York market last week. They brought $1.25 to $1.50 per bushel.

Cabbage Holds Steady

Old-crop Danish cabbage was in moderate supply in the week before New Year's, and the market was steady, especially for fancy, firm, green stock. Wholesale prices, however, were $1 to $2 lower per ton on December 27 than the week before. Best white, bulk, per ton, sold at $20 @ 22, with a few small sales of fancy green at $23, ordinary $18. Red cabbage was slightly more plentiful, but continued at $45@ 50 per ton for fancy large. Out of 80 carloads received at New York in previous week, 78 came from New York State.

Onions Moving Earlier Than Usual

As usual, only a small proportion of the bulk of offerings of onions were fancy, well colored and large sized, for which there was a firm market. The best onions were received from Ohio and Indiana, and sold December 27 at $2.75 @ 2.85 for No. 1 Yellow, best, with a few small sales up to $3. Present prices for best yellows are about half what they were at this time last year, but No. 2s are very little lower. Orange County yellows, $2.25 @ 2.50; reds, best, $2 @ 2.15. Total carlot shipments of onions in the country to date exceed those last year to same date by several thousand cars. One of the largest dealers in onions in this market said last week that this is the first time this season he has been able to make any money on onions. The best demand for them usually comes just before Easter, but ordinary stock should be moved whenever a good market can be found.

Butter Weakens Slightly, Reserves Short

After months of continual advancing, butter prices declined slightly last week. Increasing supplies of foreign butter caused a weaker feeling among buyers. Creamery extra was 54 cents on December 27, one cent lower than the week before. Reserve stocks in storage at New York are now down to 3,657,302 pounds, as compared with 10,346,906 pounds this time last year. In the four largest markets storage holdings are 19,000,000 pounds less than last year. Winter production in this country has so far shown no increase.

Importations of foreign butter here so far this fall and winter total 19,579 casks Danish, 50 casks Holland and 100 boxes Argentine. At least 3,000 casks of Danish are due here before January, and altogether about 98,500 casks of New Zealand butter are reported either on the way or about to be shipped to New York. A large portion of this New Zealand butter has already been sold to chain stores. The dairy industry in New Zealand is reported by trade commissioners to be undergoing a remarkable development.

Near-by Eggs Drop Eleven to Twelve Cents

All near-by eggs dropped 11 to 12 cents per dozen last week, and the market was very weak. Receipts were much larger, and future prospects are very uncertain. The top quotations for New Jersey hennery whites and other near-bys of equivalent quality was 61c on December 27, compared with 71@73c a week previous. Some very fancy near-by eggs, both white and brown, brought premiums above quotations. The mild weather around Christmas caused greater production, and buyers became more cautious.

Storage eggs continued to move freely. Reserve stocks at New York, however, were about 10,000 cases in excess of a year ago on December 23. In the four largest markets of the country the reserve stocks were 1,114,713 cases on December 23, as compared with 815,113 cases on the same date last year. The apparent movement of eggs into channels of consumption was lower last week than in either of the two weeks preceding and less than in the corresponding week of last year.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers hold on December 27:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
Hennery, whites, extra fancy	60@62	......	......
Extra first	56@58	56@58	46
Firsts	51@54	......	......
Gathered, whites, first to extra firsts	50@51	50@52	......
Lower grades	48@50	......	......
Hennery browns, extra fancy	52@55	52@55	......
Gathered browns and mixed colors, extra fancy	50@54	......	......
Extra first	49@51	......	......
Pullets	44@46	......	......
Butter (cents per pound)			
Creamery (salted) high score	......	......	......
Extra (92 score)	54	58@59	55
State dairy (salted), fine to fancy	52@53	54@55	......
Good to prime	44@47	49@53	......
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$24@25	$19@20	$20@21
Timothy No. 3	21@23	......	17@19
Shipping hay	18@20	......	13@14
Fancy light clover mixed	24@25	......	19@20
Oat straw No. 1	......	......	12.50@13
Rye straw No. 1	24@25	......	......
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	21@25	24@25	25@27
Fowls, leghorns, fancy, heavy	18@19	16@20	19@22
Chickens, colored, fancy, heavy	19@20	23@25	23@24
Roosters	......	17@18	16@17
Live Stock (cents per pound)			
Calves, good to medium	13¼@15½	12@14	......
Bulls, common to good	4@5¾	4½@5½	......
Lambs, common to good	14½@16	13½@16	......
Sheep, common to good ewes	6@7½	5½@7	......
Hogs, Yorkers	8¼@9½	9	......

Poultry Market Dull After Holidays

Turkeys arrived in such large quantities just before Christmas that prices dropped 6 to 8 cents, and at close fancy Western turkeys sold at 42 @ 45c. Since Christmas, speculators have secured for freezing a good many cars at 44 @ 45c for young toms and 35c for old toms. All poultry declined after close of Christmas market, and probably will not recover till after New Year's. The receipts of fresh killed poultry continues heavy. Market is very weak for hard, coarse and poor quality stock, but fancy, soft-meated chickens sell well. Dressed geese are in good demand, but ducks have been rather slow. Although fowls are in liberal supply, they move well at steady prices.

The receipts of live poultry have been extraordinarily heavy. The demand is good, but not sufficient to dispose of the supply at satisfactory prices. Fancy, heavy fowls have sold most easily. (See quotation in center of page.)

Country Dressed Meats Hold Fairly Steady

Although receipts of dressed calves were light, they exceeded the demand last week and sold slowly. Wholesale prices were 1 cent per pound lower on all grades than a week previous. Per pound, choice, 17 @ 18c; good to prime, 15 @ 16c; medium, 12 @ 14c; small, 8 @ 10c; with skins, 18 @ 24c.

Dressed pigs found a fair demand at steady prices. Per pound, white, skinned, roasting, 10 to 15 pounds, 30c; 16 to 40 pounds, 20 @ 23c; 40 to 60 pounds, 15 @ 16c.

Live Stock—The market steady on all kinds of live stock last week, and prices were practically unchanged from previous week.

Hay Market Dull After Christmas Spurt

The advance in hay prices just before Christmas did not continue, and on December 27 the market was dull, with prices barely steady. Owing to heavier supplies, Brooklyn prices were about $1 per ton lower than at 33rd Street. Prices on December 27 were practically the same as a week before. The new Federal hay grades will be used exclusively in the New York market after January 1. It would be well for every hay shipper to write to the U. S. Bureau of Agricultural Economics, Washington, D. C., and secure a copy of them.

Feed Market Inactive

The Buffalo feed market was quiet and inactive after holiday recess, previous quotations ruling. Corn declined 1 cent per bushel.

Prices quoted by State Department of Farms and Markets December 27 on carlots f. o. b. Buffalo, 100-pound sacks, per ton, follow: Gluten feed, $44.25 @ 45; cottonseed meal, 36 per cent, $49.50 @ 50; cottonseed meal, 43 per cent, $54.75 @ 55.25; oil meal, 33 to 34 per cent, local billed, $54 @ 54.50; dried brewer's grains, $49 @ 50; standard spring bran, $32.30 @ 32.80; hard winter bran, $33.25 @ 33.80; standard spring middlings, $31.55@32.05; choice flour middlings, $35.50 @ 36; white hominy, $36.30 @ 36.80.

Grain—The following were cash grain quotations per bushel at New York the last week in December: No. 2 red wheat, $1.41; No. 2 hard winter, $1.41; No. 2 yellow corn, 91c; No. 2 mixed, 90½c; No. 2 white oats, 56c; No. 3 white oats, 55c; barley for malting, 82 @ 84c; rye for export, $1.05. At Chicago: No. 2 red wheat sold at $1.32½ @ 1.34; No. 2 hard winter, $1.27½; No. 2 white corn, 74 @ 74½c; No. 2 yellow corn, 74 @ 74½c; No. 2 white oats, 45½ @ 46c; No. 3 wheat, 43¾ @ 44¾c; barley, 64 @ 72c; rye, 91½c. Grain prices, Buffalo, per bushel: No. 2 yellow corn, new, 84½c; No. 3 yellow corn, new, 83½c; No. 2 white oats, new, 53c; No. 3 white oats, 51c.

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Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. J. A. LEACH, CORTLAND, N. Y.

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Get a bunch of early chicks. Have that idle brooder earning money. The first broilers are the money makers. Prices now: Buff, Barred Rocks, Reds, Anconas, Minorcas, 18c each; White, Brown, Buff Leghorns, 16c each; Broiler chicks, 12c each. Write for prices for future delivery. Safe Delivery Guaranteed by Parcel Post.
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10% will book your order for Strickler's pure-bred, vigorous pepful baby chicks. Hatches February 12-19-26 and each week thereafter. Barron English large type S. C. White Leghorns $20 per 100, $95 per 500; S. C. Buff Leghorns $16 per 100, $75 per 500; Barred Rocks, R. I. Reds, $18 per 100, $85 per 500. Special delivery parcel post prepaid, 100% safe delivery guaranteed.
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$11 AND UP. Hogan tested, heavy laying, Barred and White Rocks, Reds, Anconas, Minorcas. 50, $8.50; 100, $16; 500, $77.50. Buff Orpingtons, White Wyandottes, 50, $9; 100, $17.50; 500, $85. Wh. Br. and Buff Leghorns, 50, $7.50; 100, $14; 500, $67.50. Mixed, $11 per 100 straight. Postpaid, full live delivery guaranteed. Order NOW from this ad. Catalog free. Also eggs for hatching.
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TIFFANY'S SUPERIOR CHICKS THAT LIVE
Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
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Hampton's Black Leghorn Chicks
Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.
A. E. HAMPTON, Box A Pittstown, N. J.

A Half Century of Breeding

THE recent announcements of the coming dispersals of the Holstein herds of Ward and Ralph Stevens, to be held jointly in the Syracuse Sale Pavilion, mark the beginning of the final chapter of an interesting story of Holstein development, covering a period of nearly half a century—the story of the building up of the Stevens herds.

In 1876, one of the Holstein pioneers of the country, Henry Stevens, established the Brookside herd on his farm at Lacona, N. Y. By careful attention to selection of foundation stock and through the use of high-class herd sires, Brookside Herd rapidly became one of the best-known herds in the country. When, in 1894, the system of official testing was first established, the Stevens herd, which had been famous for its unofficial records, immediately took the lead, being the first herd aside from the Michigan State College, to make an official test. The first association prize list, published in 1894, shows that sixteen of the twenty-seven prizes offered went to the herd of Henry Stevens & Sons.

Famous among the foundation cows in the herd was De Kol 2d, the first 26-pound cow. She was the foundation cow of one of the greatest families of the breed. Her blood had been widely scattered through every State in the Union, and her influence had been exerted to a profound degree everywhere. Her stable companion, Netherland Hengerveld, was the next cow to make 26 pounds, and held the world's record for a number of years, while a bull combining the blood of these two, De Kol 2d's Butter Boy 3d, was, until his death, the leading herd sire. Belle Korndyke and her famous son, Pontiac Korndyke; Helena Burke and her son, De Kol Burke; Magadora and her son, Hengerveld De Kol, and others of the greatest animals of that day, were all members of this herd.

Noted Winners in the Show Ring

Among the noted show ring winners developed at Brookside might be mentioned Aaggie Grace 2d's Pietertje, famous also as the first cow in the East to produce over 100 pounds milk in a day on official test; Soldene 2d's Netherland, and his even more famous son, Soldene Clothilde Artis, who was undefeated at many of the largest shows of the East and Middlewest; and, in later years, Jessie Veeman, A., maternal granddam of Sir Veeman Hengerveld, who was sweepstakes cow at the New York State Fair and wherever shown.

Early in the 20th century the herd was divided, a third of the herd remaining on the home farm to be operated by Mr. Stevens, Sr., and his youngest son, Floyd, who carried on the breeding operations for a number of years, the other two-thirds going to Ward and Ralph Stevens, to be operated under the name of the Stevens Bros. Co. In the Stevens Bros. herd were developed King of the Pontiacs and practically all of his A. R. O. daughters.

Partnership Dissolved

Some five years ago, the Stevens Bros. herd was dispersed to dissolve the partnership, the cream of the combined herd going to establish a foundation of two separate herds. The old family name of Brookside was retained by Ralph Stevens. Ward Stevens adopted Wandaga as his herd name. To head the new Brookside herd, Ralph Stevens selected Sir Pontiac Waldorf Pietje, a son of the former Canadian champion, Lady Waldorf Pietje. When his first daughters arrived, they were found to be a most uniformly promising lot. Upon freshening, these daughters proved to have the desired combination of production and individuality.

To mate with the Waldorf daughters, Mr. Stevens selected a maternal brother to May Echo Sylvia, whose name he changed to Radium. The dam of Radium is May Echo Verbelle, who at eight years old milked 700 pounds in a week on official test He has transmitted much of his own individuality to his offspring, of which there are now 29 daughters and six sons in the Brookside Herd.

The Wandaga herd has been under federal supervision for a number of years. Both herds will be sold under a 60-day retest guarantee against tuberculosis.

Buy New York Holsteins

New York State Breeders Sale

N. Y. State

Jan. 17-18—Fair Grounds—Syracuse

A Sale of State Association Quality;—
Creditable Holsteins, Honestly Sold.

This is the annual mid-winter consignment sale of our Association. Our inspection committees have selected 150 head pure bred Holsteins for this event, principally cows fresh, or nearby, and bred heifers. Over 50 consignors will be represented, including many of New York's leading herds.

The offering will comprise many record animals, including three 30 lb. cows; also a large offering of females without records, of good type and fresh or heavy in calf. Animals of this class may be secured at moderate prices and should appeal especially to dairymen who wish to start a pure-bred Holstein herd at moderate figures.

The sale includes an excellent offering of young bulls from high record dams;—up to 37.61 lbs. butter in 7 days,—includes several with good yearly records.

OUR GUARANTEES

We take every practical precaution to safeguard the buyers' interests. Our veterinarian examines all entries at the time of sale.

Practically every consignment from herds under Federal Supervision, the great majority with last herd test clean; 60-day retest.

The State Fair Grounds are connected with Syracuse by convenient trolley service and provide an exceptionally sanitary equipment for this event.

NOTE THESE ENTRIES

Our selection committees have secured fifteen bulls from high-record dams. Note breeding of the following:

A ten-months-old son of Spring Farm King out of Homeland Pontiac Sylvia. She has a record of 37.81 lbs. butter from 827.5 lbs. milk, has twice made over 35½ lbs. butter, and has two 30 lb. daughters.

A son of Dutchland Konigen Sir Changeling out of a 30 lb. dam.

A son of a 28.8 lb. cow, now on yearly test and making 1,000 lbs. butter.

A son of a 29.97 lb. three-year-old.

A son of King Mabel Segis Korndyke, out of a 991 lb. yearly record dam.

A 31 lb. son of Spring Farm King.

A grandson of Anna Lenox DeKol 2nd (35.26 lbs.), out of a 21 lb. Jr. two-year-old daughter of a 29.38 lb. cow.

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New York Holstein-Friesian Assn., Inc.
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HILLPOT QUALITY CHICKS
It's not only what WE do, that makes them Hillpot Quality Chicks.
It's what THEY do, right in your own poultry yard. The quick way they develop into profitable layers and payers is the natural result of *their* ancestry—plus *our* right hatching.
For the biggest profit results on
LEGHORNS, ROCKS, REDS, WYANDOTTES
—told not by us, but by our customers, be sure to read our
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Full of valuable facts that point the way to poultry success and poultry profits, that show why "Wherever they raise them they're sure to praise them."
Safe delivery of full count guaranteed anywhere within 1200 miles.
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BABY CHICKS
From 200-Egg Hens
Chicks from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.
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HIGHEST QUALITY BABY CHICKS
Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
S. C. White, Brown, Buff Leghorns	$15	$72	$140
Barred Rocks, R. I. Reds, Anconas	$18	$85	$160
White Rocks, Blk. Minorcas	$20	$95	$180

All chicks sent by special delivery parcel post prepaid. 100% safe and live delivery guaranteed. 10% books order any week after Feb. 1.
SHERIDAN POULTRY FARMS SHERIDAN, PA.

CHICKS PEDIGREED, EXHIBITION & SELECT GRADES, from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.
NABOB HATCHERIES, Box A5 Gambier, Ohio

CHICKS Husky livable chaps. Egg machines from high laying, pure farm bred stock. Specialists in S. C. W. Leghorns, R. I. Reds. B. P. Rocks. Sent postpaid. 100% live delivery guaranteed. Eggs and Breeding stock. Illustrated circular "ALL THAT IS NEW IN POULTRY" FREE.
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CHICKS From good selected heavy laying flocks of Rocks, Reds, Minorcas and Leg. Right prices, postpaid, full live delivery guaranteed. Bank Ref.
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ENGLISH-AMERICAN S. C. WHITE LEGHORNS
CHICKS from 265-270 Egg Strain stock and PEDIGREED STOCK FROM 280 TO OVER 300-EGG HENS. POSTPAID.
Free Feed with each order. One hundred per cent. Safe Arrival Guaranteed. A Special Discount of $3 per 100 Chix on orders placed promptly. Book of valuable information to poultry raisers FREE for the asking. We WANT you to have it. Drop us a card right now before you forget it and let us tell you more about this truly wonderful strain of layers.
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Chicks—Breeders—Eggs
S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.
TRY US AND BE SATISFIED
RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

1923 Chicks Wh., Br., and Buff Leghorns, 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.
Globe Hatchery, Box S7 Berne, Ind.

DAY OLD DUCKLINGS Indian Runners and Mammoth White Pekins. New 1923 catalogue and price list. Ducklings at chick prices.
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= HARRIS BROTHERS CO. =

Announce A Wonderful Buying Opportunity

Big Savings from Our New Stocks at Chicago & Our Army Camp Sales!

Galvanized Roofing

Prices Cut in Half!!

FREIGHT PREPAID

This sale brings you world's greatest roofing values in all dependable grades. Buy quickly and liberally. These prices are freight prepaid to Illinois, Indiana, Ohio, Iowa, Michigan and Wisconsin. Ask for Freight prepaid prices to other states.

Look at This Low Price!

Lot **PH1**—Reconditioned, corrugated, galvanized roofing and siding. Per 100 square feet.....**$3.00**

Painted Corrugated Sheets

Lot **PH2**—Overhauled, painted, corrugated sheets. Per 100 square feet.....**$2.25**

Slate Coated Roofing!

Lot **PH3**—Red or gray-green, slate coated roofing. Rolls contain 108 square feet. Nails and cement included. Per roll new stock.....**$2.00**

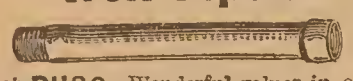
Gold Medal Wallboard!

Lot **PH4**—Splendid wallboard furnished in 32" and 48" widths; lengths up to 12 ft. Per 100 square feet, freight paid to states above new stock.....**$3.95**

New Government Sheets

Lot **PH5**—Heavy weight 22 gauge 2½" corrugated metal sheets. Size 27½x84". Per 100 square feet. Prepaid as above new stock.....**$3.95**

Iron Pipe Bargains!



5c PER FOOT

Lot **PH20**—Wonderful values in our big stocks. Random lengths complete with couplings, all sizes at big savings, 1 in. pipe, per foot.....**5c**
All other sizes priced proportionately low.

Bigger opportunities and better values than ever before will be found in our gigantic stocks. This colossal sale greatly outdistances all of our sensational sales of the past.

No matter where you reside the combined price smashing power of the wonderful bargains at our numerous great U. S. Government Army camp operations and at our headquarters plant here at Chicago offer irresistible values. Mail the coupon now.

Lumber $15 to $25 Per Thousand!

Millions of feet of splendid lumber is now on sale at our various U. S. Government Army Camp operations. Good sound lumber, thoroughly seasoned, with nails pulled out—not clipped off. All kinds—send your list for low quick sale prices or mark coupon for our catalog of army camp material located nearest to you. Combine your requirements with your neighbors in order to secure the benefit of lowest car load freight rates.

Timbers	Sheathing	Doors	Novelty Siding	Plumbing
Joists	Drop Siding	Shiplap	Ceiling	Heating
Studding	Flooring	Windows	Planking	Pipe and Fittings

At our various government army camps we have for sale various kinds of sash, windows and frames suitable for practically every building purpose.

Sash priced from.....75c to $1.50

Windows priced from..$1.50 to $3.50

Thousands of doors in regular sizes are offered for sale at the various camps at big savings. Sizes range from 2 ft. x 6 ft. to 3 ft. x 7 ft., most of them being medium size 2 ft. 8 in. x 6 ft. 8 in.

Priced from.....$1.25 to $3.75

Mail The Coupon Today for—

The complete list of materials now on sale at the Army Camp Nearest to you will be sent quickly and without charge or obligation to buy.

Our General Catalog of NEW Building materials, Guaranteed READY-CUT Harris Homes Plumbing, Heating and everything needed to build and improve.

Govt. Barbed Wire!

$1.15 Per Reel

Bought by us at less than cost of manufacturing. Made under rigid government inspection. 12 gauge open hearth steel wire with 4 point barbs 5-8 inches long spaced 3 inches apart. 58 pound reels contain 700 feet; 112 lb. reels, 1,400 ft. Coated with special formula weather resisting paint.

Lot Number **PH200.**
Price, per reel.....**$1.15**
112 lb. reels.....**$2.25**

Shipped from Chicago or Cresskill, N. J.

Smooth Fence Wire!

Smooth galvanized 9 gauge wire suitable for fences, stay wires, grape vines and all general purposes about the home and farm. Rolls weigh about 150 pounds.

Lot No. **PH100.**
Price, per 100 lbs.....**$2.95**

Shipped from Chicago or Cresskill, N. J.

Barbed Bottom Hog Fence!

Lot **PH6**—Made of No. 11 top wire and No. 14 intermediate wire and stay wires. Spaced 6 inches apart. 3, 3½, 4, 4½, 5 and 6 inches, spaced from bottom upwards.

26 in. high, per rod..**24c** 32 in. high, per rod..**30c**

Splendid Hog Troughs!

Lot **PH7**—Strong non-tip feed troughs for hogs, sheep and cattle. Heavy steel, 12 inches wide.

5 feet long, each.....**$1.95**
8 feet long, each.....**$2.95**
10 feet long, each.....**$3.95**

FAMOUS WATTS CORN SHELLERS

$65 Now Buys This Sheller

You can now buy and own the world's best corn sheller at big reduced prices. Most liberal terms. 30 day free trial, and a guarantee of satisfaction.

No. PH8—Watts No. 1—$22.50. For the man who shells corn for his own use, capacity 50 to 75 bu. per hour, with 3 H. P. engine.

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No. PH10—Watts No. 7—$192. With standard equipment, including wagon box, grain elevator, cob stacker, type "R" feeder on steel trucks, capacity 200 bu. per hour.

Watts No. 4-A Corn Sheller. No. PH11. This is the famous Watts No. 4-A Corn Sheller, fitted complete with cleaning system, cob stacker, grain elevator and automatic feeder—capacity 75 to 125 bushels per hour with a 4 to 6 H. P. Engine. Price.....**$65.00**

3% cash discount allowed on Corn Shellers if cash in full is sent with order.

Cream Separators

Famous Cream Getter

EASY TERMS—FREE TRIAL

Lot **PH8**—Our famous cream separators, have made a wonderful record in all sizes—all seasons of the year in all parts of country, patented exclusive improvements everywhere.

Fully Guaranteed to give complete and lasting satisfaction.

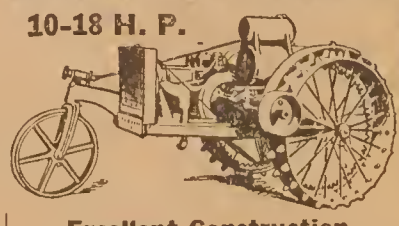
Size No.	Cap. per hr.	lbs price	Sale No.	Size Cap. per hr.	lbs price	Sale
*1	*175	*$31.50	5	500		$54.00
*2	*250	* 35.00	7	750		62.00
3	375	49.00	9	950		68.00

*Indicates table sizes. All machines are ready for shipments from Minn., Pa. and Chicago. 3 per cent discount is allowed if cash is sent with order.

Allis-Chalmers Farm Tractors

Reduce Sale Price $295

10-18 H. P.



Lot **PH600**—This is your one big chance to own a famous Allis Chalmers Farm Tractor. This great offer means that you get a complete tractor at less than price of a reputable gas engine of equal power.

Easy Time Payment

Buy on your own terms. We will arrange to extend the payments for a reasonable period.

A Double Guarantee

With each Allis Chalmers Farm Tractor, we give you our well known "money back guarantee" which assures you of satisfaction, and Allis Chalmers' guarantee, which protects you forever against defects in material and workmanship.

Excellent Construction

Allis Chalmers 10-18 H. P. Farm Tractors, are built to give best service under most severe conditions. A strong, durable machine for pulling plows, harrows, binders, wagons, etc. —will do all kinds of work, taking the place of 8 horses. Maximum power for its weight. Few parts easily accessible, best material—strength and efficiency combined.

GASOLINE ENGINES

Lot **PH9**—Monarch engine with Webster oscillating magneto. Develops full rated horse power. Sure starter and steady worker under all conditions.

GASOLINE	
1¾ HP.	$ 45
3 HP.	75
5 HP.	100
7 HP.	150

KEROSENE	
3 HP.	$ 87
5 HP.	113
7 HP.	170
12 HP.	290

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Check the squares below, to show which items and material you are interested in, and we will send you the proper literature free, and postpaid.

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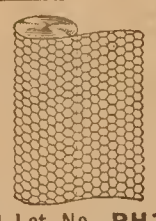

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Made for government under rigid inspection of 19 gauge Bessemer steel wire heavily galvanized; 2 inch mesh in 2 heights. Bales contain 150 lineal ft.

36 inches high, per bail.....**$2.40**

Lot No. **PH300**—72 inches high, per bail.....**$4.75**

INCUBATOR BARGAIN

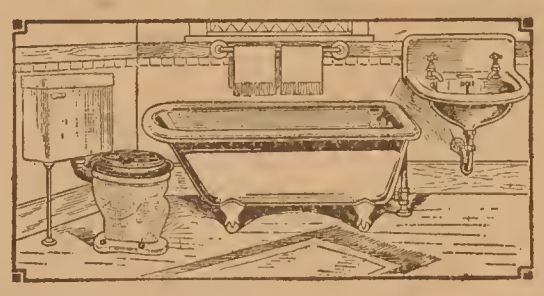
$5.25

No. PH168—Only a few left. Practically all steel. Round like a nest. No cold corners. Big Hatch always. Capacity, 70 eggs.
Each....**$5.25**

Wire Nails $1.95 Per 100 Lbs.

No. PH80—New wire nails. All sizes from 3 to 40d. Handy assortment for general use. Indispensable for use about the farm. 100 lb. keg....**$1.95**

Bathroom Outfit $52.00



Lot **PH166**—Bathroom outfit complete from our Army Camp Stock. Everything guaranteed in perfect mechanical condition and a big value at this low sale price. Consists of enameled bathtub 5 ft. long, lavatory and closet outfit with white earthenware bowl, and plain design, white porcelain tank. Nickel plated faucets, bath cock and supply pipes. Outfit complete **$52.00**

One Piece Kitchen Sinks

Lot **PH10**—White porcelain enameled roll rim kitchen sinks furnished complete with 2 faucets and trap.
Size 18 in. x 24 in.....**$12**
Size 18 in. x 30 in.....**$13**
Size 20 in. x 30 in.....**$14**
White porcelain enameled drain board, 24 in. long, each.....**$5.50**

Furnaces At ⅓ Price

$18.00

Lot **PH11**—Now offered for quick sale from our army camp stock. Furnaces made by leading foundries. At a very moderate price any tinsmith or handy man can make them into a pipe or pipeless furnace.

Fire Pot Size	Cubical Feet	Price
18 inch	12,000	$18.00
24 inch	22,000	25.00
28 inch	45,000	30.00

GUARANTEED PAINT

Lot **PH12**—Best formula, won't peel, blister, fade or rub off. White, black and 26 non-fading colors. Put up in containers of 1 to 50 gallons. Per gallon.....**$1.85**

Barn or Garage Paint

Lot **PH13**—Guaranteed barn or garage paint. Red, yellow or maroon. Per gallon.....**$1.35**
Green-slate or red.
Per gallon **$1.60**

HARRIS BROTHERS CO. 35th & Iron Streets CHICAGO

VOL. 111 Founded 1842 No. 2

AMERICAN AGRICULTURIST

$1.00 A YEAR January 13, 1923 5 CENTS A WEEK

A Necessary Job in Dairying

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—hidden weakness or rugged strength?

Get the inside story before you buy your boots

There's nothing mysterious about the wear of a boot—

You get just as much wear *out* of it as the maker builds *into* it.

What's built under the smooth rubber surface? Is it rugged strength or hidden weakness?

In the illustrations below we're making just as plain as diagrams can, what's "under the rubber" in a "U. S." Boot.

We've picked out the four points where boots get the hardest wear—ankle, back of the heel, instep and sole.

Notice the strong reinforcements built into U. S. Boots at every one of these points!

We've been making rubber footwear for 75 years. We don't just *buy* rubber—we actually produce on our own plantations the finest grade that can be grown. Our factories are manned by the most experienced boot makers in the country—craftsmen who know the importance of painstaking care. And we're proud of the results—and of the satisfaction farmers take in them.

Trade

Mark

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You'll find every type of rubber footwear in the big U. S. line. There's the U. S. Walrus, the famous all-rubber overshoe—the U. S. lace Bootee, a rubber workshoe for spring and fall—U. S. Arctics and Rubbers—all styles and sizes for the whole family. Look for the "U. S." trademark whenever you buy—the honor mark of the oldest rubber organization in the world.

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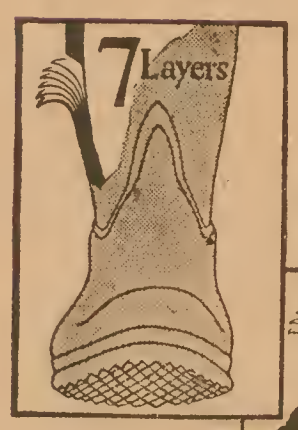

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American Agriculturist

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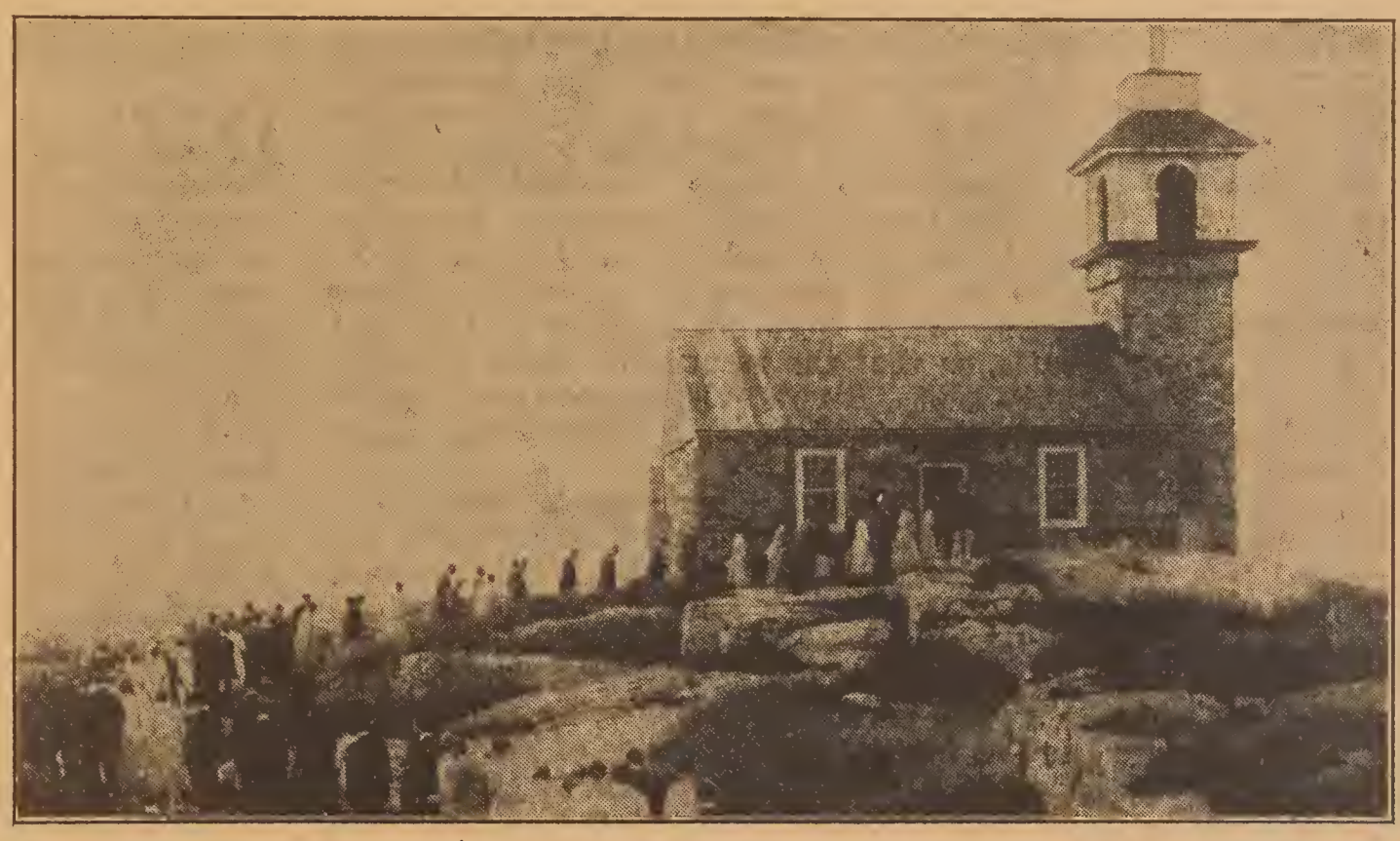
Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending January 13, 1923** **Number 2**

Where Have Men Like This Gone?

A Fireside Reflection on a Preacher of Righteousness.—Jared VanWagenen, Jr.

IN the year 1828 there was called to the service of the Lutheran churches of New Rhinebeck and Sharon in Schoharie County, N. Y., a young minister Philip Weiting. He had been born twenty-eight years before in the Mohawk Valley just a few miles from the locality where his life's work was to be wrought. His father was Rev. John Christopher Weiting, a one time Hessian soldier who either voluntarily or otherwise had failed of repatriation by the British Government at the close of the Revolutionary war. John Christopher must have lived a somewhat noteworthy and strenuous life. Once a student in a German University, he became a soldier of fortune against the Colonies and later in his new home, a preacher of the Lutheran Church. His ministry was surely not without a certain measure of honor and success, for he preached for nearly a quarter of a century in one charge and was buried in the churchyard, leaving behind him no heritage of wordly goods, but only a widow and fourteen children to buffet the world. It can be mathematically demonstrated from a study of biography or from a tabulation of "Who's Who" that in the race for success and fame the greatest possible advantage that can come to a boy is to be born in a parsonage, and this opportunity Philip enjoyed, even under such untoward circumstances.



The church of our fathers was the most dominant interest in their lives. To-day other things dominate. Why? Read Mr. Van Wagenen's fine story on this page and the editorial on page 24, and let us give thought to the grave problem of the Country Church.

Young Weiting was educated for the ministry at Hartwick Theological Seminary—an institution hidden away among the hills at the headwaters of the Susquehanna, in the heart of the Leatherstocking Country, which the magic of Fennimore Cooper's pen has made romantic forever. Hartwick Seminary has had a long and honorable, but never conspicuous history, and comparatively unknown as it is, it probably represents the oldest School of Theology in America. In Weiting's time it was not only a general academy and Theological school, but it was quite as much a mission to the Indians, who still lingered in considerable numbers in central New York, and in its primitive class rooms the sons of the pioneer and the sons of the Red Man plodded through the prescribed courses of study and on its Green there was doubtless the horseplay and bandiage and laughter and song that is the eternal heritage of student youth.

Here Weiting spent some seven years from 1818 to 1825, acquiring all the education that he ever received, and this included some theology and at least a little Greek. Probably he was a well-trained man according to the standards of his church and time, and yet it must have been singularly narrow and incomplete in comparison with our ideals.

Perhaps it was a good place for him to pass those seven years. It was a country especially rich in historical adventure and romance. Just to the north was Cooperstown and the beautiful lake—Cooper's Glimmerglass. Over the hills a few miles was Cherry Valley with its memories of the Indian Massacre and its more than forty settlers buried in one common grave. Almost in front of the door ran the little Susquehanna, down which in the summer of 1779 General Clinton's army floated in a fleet of 208 flat boats borne on the crest of an artificial flood made by damming the lake and later releasing the impounded waters—perhaps one of the strangest and most original maneuvers in all the long chronicles of war.

Graduating from the Seminary, he was licensed to preach and had a brief pastorate of three years in Lowville, N. Y.—a period that sufficed for him to marry a daughter of the land. Then wisely concluding, it is said, that it was not well for a man to continue to minister in the church from which he has selected a bride, he chose a new field of labor lying something more than a hundred miles to the south.

Thus was uneventfully begun a pastorate which was destined to employ all the energies of his subsequent life and to continue for forty full, unbroken and fruitful years.

I never saw him, for he died two years before I was born, but my father's house was within easy earshot of the church where he did many of his mighty works and in my boyhood his shadow still lay long over the land. As I have heard old men tell of him and as I have gathered some of the stories concerning him that have come down across the years, I have come to think of him as a great looming figure of a man and before he is forgotten I would like to set down some of these things.

The mere fact of having been a pastor in the same field for forty years is in itself a certain claim to distinction. So far as we can know for all that span he enjoyed to a most unusual degree the love and confidence and enthusiastic loyalty of a great and scattered parish. According to our custom we named him "Dominie"—a title of respect that we give to preachers who are worthy of it—and by that title he lived and died and was the most widely known figure and foremost citizen of three townships.

Of course, his career is rapidly passing into the shadow-land of myth and tradition. Only a little handful of folks is left who were old enough to retain clear cut impressions of his work. I have asked old men what was the secret of his power, only to be answered by returning the same question.

One thing is sure; he was no pale, cloistered ascetic, but a great, athletic lion of a man who laughed often and heartily—who found life full of very pleasant things—who looked upon the world and called it good. I like to think that there was a sort of Martin Luther quality in his mirthfulness. His picture shows a strong, pleasant face with kindly eyes framed in a great ruff of beard—the face of a man not easily discouraged or made afraid. He mingled easily with all sorts and conditions of men. In the days when feats of strength and wrestling bouts were more common than now, it is said that "no man ever downed the Dominie." There is a story of him that has a very Jean Valjean flavor. Once he was aroused at night by the sound of confusion in his hen roost. He shook himself from sleep, went out unarmed into the night, seized the thief, who squirmed helplessly in that mighty grasp, brought him in the house and set him before the candle, recognized the man, called him by name—and then bade him go and sin no more. There are other stories concerning him that emphasize the abounding physical vigor of the man. He said himself that for the greater part of his ministry he never knew the meaning of illness and scarcely of fatigue.

We can have little definite knowledge of just how he preached or what he said. Of all his thousands of sermons he preserved nothing except his valedictory, which he carefully prepared and wrote out in full,

(*Continued on page* 26)

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

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VOL. 111 January 13, 1923 NO. 2

The Ice Harvest

THE picture on our cover reminds us that this is the ice harvesting season. It is practically impossible to produce fluid milk for market without ice. A large amount of bitterness, ill feeling and financial loss always develops in the hot season because milk is not properly cooled. The time is now at hand to save all of this by putting up ice. While the ice harvest is something of a disagreeable job, it is not difficult or expensive even if there is no ice house. A temporary one can be cheaply and quickly thrown together that will keep the ice in very fair shape.

In addition to the need of ice to cool market milk, it can be made to add greatly to the comfort of the family during warm weather. On a hot day, ice-cooled water, tea or lemonade hits just the right spot. Homemade ice cream has the commercial cream beaten for real quality, and the farmer with ice has all of the ingredients at hand to make a high quality cream at home very cheaply.

A Producers' Conference Board

THERE is no business which is more competitive than that of distributing milk and other dairy products to consumers. In spite of this fact, the milk distributors and other dealers are together in a fairly strong organization called the New York Milk Conference Board, and nearly always stand as a unit when it comes to dealing with milk producers. On the other hand, the dairymen whose every interest should urge them to get together, are selling their milk in the New York territory either as individuals or through no less than four milk marketing organizations with little or no cooperation among these different groups. This is a golden opportunity which the organized dealers make constant use of to play one farm group against the other, to create bitter feeling among producers and to buy their milk at too low prices.

American Agriculturist and others have called attention to this deplorable situation several times, committees have been appointed and conferences have been held to bring about some kind of a workable understanding among the producers' organizations. It certainly stands to reason that if the dealers with their diverse interests can organize a conference board, the producers with their common interest should be able to do the same. But for some reason, little progress has been made.

In all of these organizations it is the farmers' interest that is ultimately at stake and we, therefore, strongly urge producers, no matter to what organization they belong, to bring to the attention of their leaders the need of some kind of unity among the dairymen's organizations. No leader of a farm cooperative has any right to urge individual farmers to cooperate unless he is willing to do his part to bring about cooperation between his organization and others.

One of the Snags of Cooperation

AN unfortunate situation in the affairs of the Monmouth (New Jersey) County Farmers' Cooperative Association, is valuable in the lesson it teaches to other cooperatives. The association, which is a potato sales organization, did a business of more than a million dollars in the first selling year, but propaganda was circulated by its enemies telling its members that the association never would pay them for the potatoes which had been assigned to it. To offset this propaganda the association borrowed from five banks so as to make prompt payment to farmers for potatoes at prevailing prices. These prices were not realized in the final sales, so that the association faced a deficit of $32,000. It now must go back to the members and ask them for a refund with which to meet this deficit.

Overpayment of members is one of the chief causes of failure of cooperative organizations. One of the things that members of the Dairymen's League Cooperative Association can take pride in, is the fact, that no matter how low the price of milk became nor how great the pressure, never resorted to the poor business practice of paying more for the milk than the current sales justified. Such practice may allay temporary criticism, but sooner or later it is certain to lead to permanent trouble and perhaps to ruin of the cooperative itself.

The Country Church

IN the present day careless attitude toward religion and the church it is hard for us to realize how vital religion and freedom of worship were to our ancestors who settled America. We know that the erection of the little church in every settlement was second only to the log home itself. We read of our fore fathers sitting in the cheerless places of worship for long, tedious hours listening to sermons, and reflecting upon their own sins, and we wonder at the lessening of religious enthusiasm time has wrought.

The church was once a distinctly rural institution; but now in the cities it is secondary to many other things and in thousands of farm communities it has gone entirely. Some of the spirit of our forefathers toward the church is well expressed in Mr. Van Wagenen's wonderful story of the *"Country Minister,"* featured in this issue. Incidentally, this is one of the best pieces of writing on country problems and country life we have seen in many a day, and it brings to mind the old fervor toward the church and the important part the "domine" played in the past in every farm community.

Why has this old spirit toward the church gone? Why are there few or none of the spiritual leaders such as Mr. Van Wagenen so well describes? Why do we sons hold of so little account, that which our fathers held so dear? Are we less spiritual than they? Or, was the church a man made thing built upon sand unable to change itself to meet change? Are present day sermons too long, dull and uninteresting, or are our minds too filled with shallow sensations to respond to thoughtful suggestion and reflection? Has the church stood too strongly on the technique of its creed and not enough upon service? Is the church too narrow in its attempted guidance of human thought and action? Perhaps the trouble is inadequate financial support: In short, what is the matter with the church, particularly the country church, and what is needed to bring back to the people real religious help and guidance?

For the best letter on this subject American Agriculturist will give a prize of $10; for the second best letter we will pay $5; for the third $3, and we will give $1 for each of the other letters which we can use. This letter should contain not more than 200 words, should be plainly written and should contain no sectarian discussion. Each letter should be signed, but no name will be signed in any of the letters printed. This contest closes February 15. Winning letters will be published in one of the issues soon after February 15.

The Maternal Instinct in Man

DOCTOR FLORA ROSE of Cornell says that naturally there is just as much maternal instinct in men as in women. The love of children, according to Miss Rose, does not have as much opportunity to develop in men. The necessities of modern life take men out of the home most of the time and the responsibilities of caring for the children bring the mother in constant contact with them, therefore fostering in her the so-called "maternal instinct."

It is unfortunately true that children of these times do not see very much of Father, nor do they get enough masculine association of any kind. The teaching profession is so poorly paid that it contains few men. This does not matter while the children are young, but it does with boys of high-school grade. This, of course, is no reflection upon the splendid influence of women teachers and women in the home. It is only to say that both boys and girls, to be well balanced, need the influence of and association with both men and women.

One of the fine things about farm life, however, and one of the reasons why people from the farms are so uniformly successful is the well-balanced farm home. On the farm the home is the center of the business and as soon as the children, particularly the boys, are able to get outdoors, they come in as much or more contact with Father as they do with Mother.

If business men could get a little more of the influence of little children in their lives, perhaps there would be a little less selfishness and hardness in the world.

Quotations Worth While

Memory is the only paradise from which we cannot be driven.—JEAN PAUL.

* * *

A soul void of thought, like an uninhabited house, soon goes to ruin.—YOUNG.

* * *

I think the first virtue is to restrain the tongue. He approaches nearest to the Gods, who knows how to be silent even though he is in the right.—CATO.

Yes, I Lend My Tools To My Neighbors

But—There Is A String Attached That Brings Them Home Again

THERE are two problems, or perhaps it should be said two ends of one problem, that come to every farmer. They are the problems of lending and borrowing tools. If a man has to borrow tools, he feels as if he ought to lend them. Yet he hates to lend certain valuable machines, for one who does not understand them will do more damage in a minute than can be repaired in a week. On the other hand, no man, unless he has been farming a long time, and successfully at that, is likely to have all the tools he needs for every occasion.

Assuming then that it is necessary to lend some things, one runs up against the difficulty that most neighbors find it far easier to come after a tool than to come back with it. And then some neighbors have a pleasant habit of relending the tools without consulting the owner, and then forgetting where they are. I am the proud possessor of a drag scraper. I needed one, and as no one had one in the neighborhood, I bought a machine which by the way is too small. The medium or large size is better.

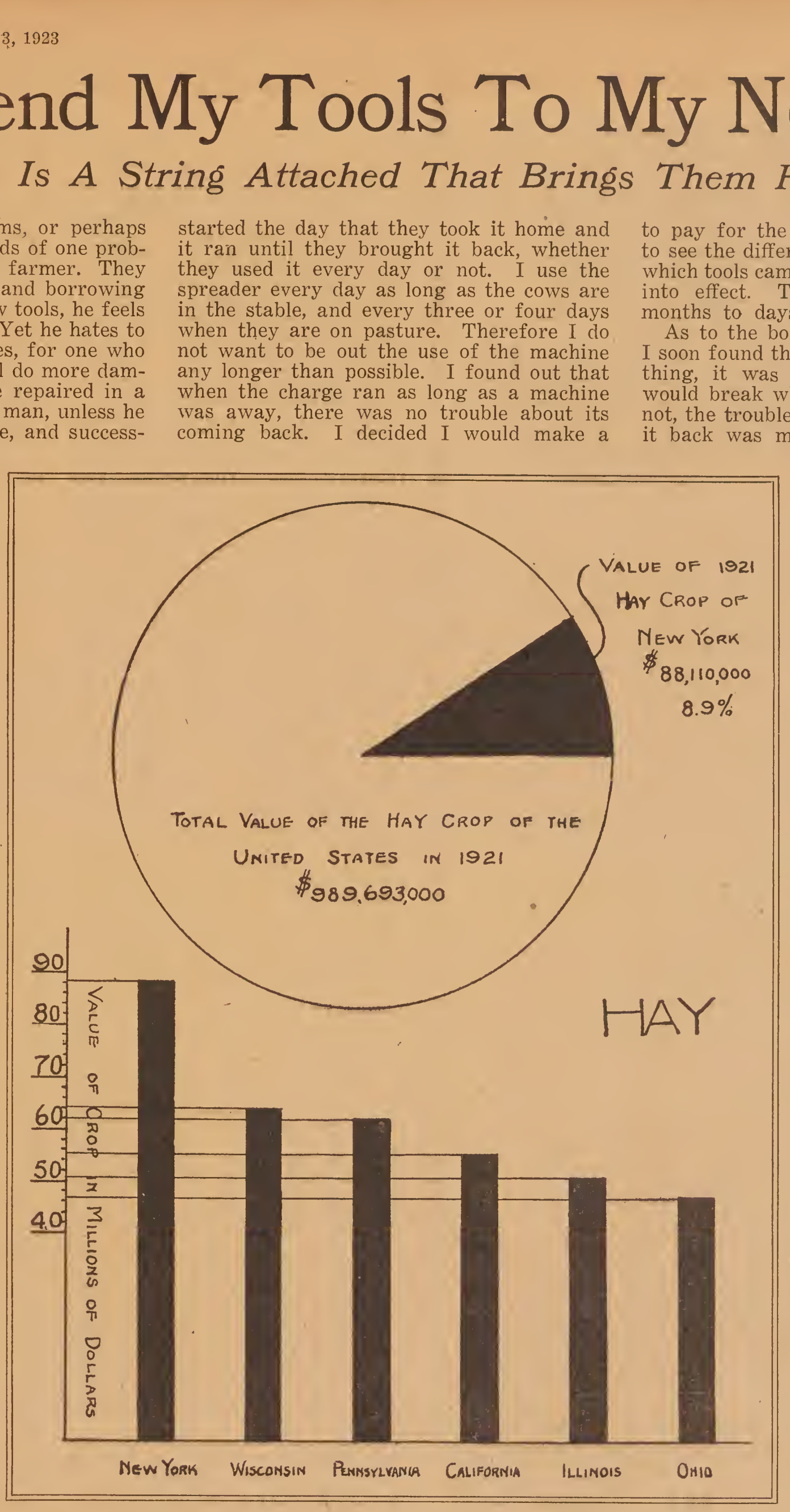
One day a neighbor borrowed said scraper, and as usual he failed to bring it back when he was finished with it. Instead he let someone else have it. I did not need it for some months and paid no attention to it. When I did want it, it could not be found.

Some months later, it was found at another neighbors, some four miles from the first, and by piecing out from both ends, I found that at least five men had had it while it was away. I loaned a fellow a pair of steel triple blocks which have never shown up. I let them go one day when I was in a hurry and not having impressed on my mind who the borrower was, did not make a note of it.

Experiences Demanded Change of Policy

These experiences forced the conclusion on me that something had to be done. I decided to have a new policy in regard to lending things. I had already made it a rule never to lend such tools as binders or corn-binders. If anyone wanted the use of these, he could hire the work done and I would send a man and team. The man would be responsible for the machine. I hired out my manure spreader several times at $1 a day and the man who took it was to be responsible for all breakage. Well, they always paid for the breakage, but they did not put in the repairs. By the time I put these in for the third time, I swore off on renting this tool out.

There is no more pleasant job than putting in links and slate in a manure soaked spreader—if you like that kind of a job. In letting the spreader, however, I learned one thing. I made the stipulation that the rent started the day that they took it home and it ran until they brought it back, whether they used it every day or not. I use the spreader every day as long as the cows are in the stable, and every three or four days when they are on pasture. Therefore I do not want to be out the use of the machine any longer than possible. I found out that when the charge ran as long as a machine was away, there was no trouble about its coming back. I decided I would make a nominal charge for any tool that went off from the place, a charge that would not amount to anything if the tool was returned promptly, and would soon pay for it if kept a few months. The tools most borrowed and kept in this way were a jack and a scraper.



The Importance of New York in American Agriculture—No. 4

The production of hay is not only an important agricultural industry in New York but is prominent in the East in general. New York stands prominent as the largest producer of this crop which amounts to practically 9% of the production of the entire United States. Pennsylvania is also well up among the leaders.

Nominal Rental Charges Bring Tools Home

I made the charge nothing the day the tool was taken and ten cents a day as long after that as the borrower kept it. I simply transferred the worry about the tools coming back from myself to the other fellow.

This charge is not enough to bother anyone wishing the use for a day or two of one of these tools. A man who wants to use one a month should buy one himself, or expect to pay for the use of it. It was inspiring to see the difference in the promptness with which tools came back after this regime went into effect. The time was reduced from months to days.

As to the borrowing end of the problem, I soon found that whenever I borrowed anything, it was about even chances that it would break while I had it. Even if it did not, the trouble of going after it and taking it back was more than enough to pay interest and depreciation on it. So I have bought a pretty full line of tools. I did this before the present high prices however. Those things that I did borrow, I always offered to pay for if it was such a thing as should be paid for. I have made exceptions of my two next neighbors in this, but of no one else.

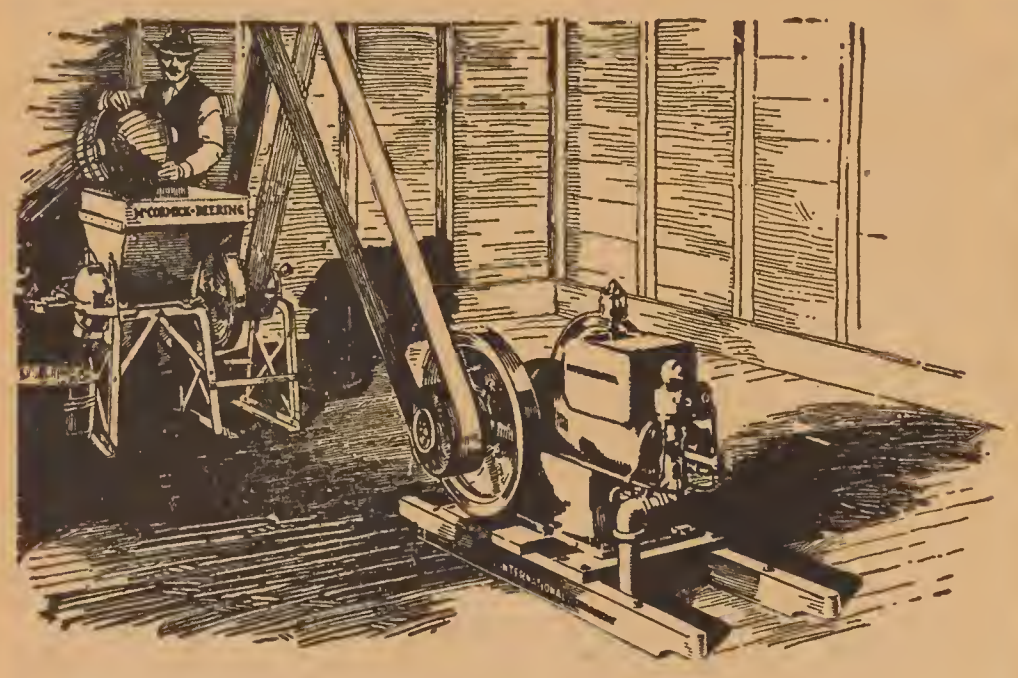
I have now a hard and fast rule that nothing is to go off the place without my express permission. That does away with having the hired man let something go, and the next year, when there may be a new man, with no one knowing where the tool is.

Rental Avoids Disagreeable Clashes

I have seen some rather disagreeable results of borrowing, which could have been avoided by a business-like arrangement. A neighbor loaned his manure spreader to a fellow and he broke it. He left it standing outdoors for several years, the owner having meanwhile moved away. At last the owner got tired of waiting for the man to fix it and bring it back, as he had continually promised, and finally sued him. He got the value of the machine. If there had been a hard and fast bargain I have spoken of, the owner would have had the machine back in a week or so, and the renter would have been out only the rent and the repairs.

There is one thing that would be a good thing, but which I have never done, and that would be to have a notebook in which the borrower would sign a receipt for the tool, dated. This would do away with any uncertainty, but with the ten cents a day charge, there is seldom any difficulty. The tool comes back before there has been time to forget.

As to the charge, none of the men that I have loaned to have made any kick. They all agree that if the tool is needed at all it is worth ten cents a day to a man. Some who would not otherwise wish to borrow feel free to do so, and there are a few who do not feel like borrowing under these circumstances. I am perfectly willing to pay for anything I borrow, and in fact would rather do so. I guess the whole thing can best be governed by the golden rule—"Do unto others as you are willing to be done by."—A. H. DE GRAFF, N. Y.



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Where Have Men Like This Gone?

(*Continued from page* 23)

and this was published shortly after his death. This farewell sermon was to a considerable extent statistical and historical, and it is the only memorial of his pulpit utterances. Doubtless the fact that he spent more time in the saddle than in the study is a good reason for the scanty written records of his work. There is another reason. It was a time when men with vast approval quoted the scriptural assurance: "For the Holy Ghost shall teach you in the same hour what ye ought to say." In the face of sentiment like this it was a brave man who risked censure by taking a manuscript into the pulpit.

It is to be hoped, however, that nevertheless he avoided the error into which too many have fallen—that is trusting to "spontaneous combustion" at the critical moment, and then failing to have the phenomenon occur. And so it is that while outside of this one sermon hardly a phrase survives, we know that through many years a countryside resorted in great numbers to hear him. Of his appearance and manner there is still testimony. He began quietly, but warmed to his work until in summer when the windows were open the loiterer on the dusty highway had no difficulty in following the thunder of his argument. He had one pulpit mannerism that impressed many and is still well remembered by the few who remain. In moments of excitement he was wont to push his coat and shirt sleeves up to the elbows, suggestive of one who strips for the fray, and then his auditors nudged each other and whispered "now he's getting the Power."

I gather that it was his prayers rather than his sermons that most impressed his people. Certainly they were not always made up of the conventional and decorous phrases that are supposed to voice the desires and hopes and aspirations of the congregation. Men averred that he stood with uplifted face and talked with God. He prayed much when alone and frequently audibly. Two of his church officers are talking together on a Sunday morning. "We're going to have a great Revival soon," "Why?" "The Dominie was praying in the orchard last night."

In his preaching he was fortunate in combining a sort of flaming zeal along with tireless energy and physical vigor that knew no bounds. It was an age when the Church hardly recognized any way of salvation except through the revival meeting and when men craved and demanded an emotional experience of conversion. As his fame increased there was an unceasing demand for his services in these meetings throughout all the adjoining country. For him the one great passion in life was to preach from hilltop church to cross roads school house and go from one community to another—careless of roads and storm, journeyed this weatherbeaten Ambassador of the Kingdom of God. My father has told me how he would have some out-appointment for every night of the week, and in winter would frequently preach in revival meetings for six weeks at a time without a break. Some campaigning that! These meetings were carried on entirely without the machinery of organization, music, committees and the like that go to the making of a modern revival. They succeeded or failed almost absolutely because of the preacher.

Philip Weiting's life and spirit and career were two sided and in that was one secret of his strength. In prayer and preaching he was a rapt crusader, sounding the trumpet of the Lord. In what might be called his other life—his non-ecclesiastical life—he was a man among men—a man of affairs, possessed of unusually sound and sane judgment. This quality was perfectly well recognized. Men came to consult him not only about the welfare of their souls, but quite as often his advice was sought regarding the building of a house or the sale of a farm or the making of a will. Possibly they may sometimes have tired of the flaming preacher, but they were at least always glad to turn to the man of affairs for counsel and guidance.

In his relations with his people there was in some ways something of the priest—something of the man who really felt himself to be a bishop of souls. From various sources I have heard how, when he learned of some petty quarrel in his congregation—a dispute over a line fence or the trespass of cattle or a too astute horse trade, or some more subtle disagreement that would destroy church unity, it was his custom to go to one of the parties, take him with him in his buggy wagon and drive to the other, and then thrash out the matter together—almost always with the happiest results. Surely it required a man with courage and a sure sense of justice and almost God-given tact to act as a Board of Conciliation for a whole countryside.

It goes without saying that his pastorate of forty years was by no means without its discouragements and discords. Rather early in his ministry—about 1832—there broke out in a group of Lutheran churches in that part of the State a most amazing doctrinal and ecclesiastical controversy which centered about the medieval dogma of transubstantiation. It is strange that a dogma so unrelated to life and so artificial as this could have attracted even passing interest as late as a period within the memory of living men.

It is stranger, however, that hard-headed farmers—men whose fathers fought at Oriskany and Saratoga—men the furthest possible removed from theological training and who supposedly would be interested mainly in the price of wheat and the welfare of their cattle—should promptly take sides in a matter concerning a philosophical abstraction about which no man could positively know anything, and fight for their position as men fight for their hearthstones.

It was a long and bitter controversy, the details of which are buried in the ecclesiastical records of the Franckean and the Hartwick Synods of the Lutheran church, in the forgotten minutes of the churches involved and in the archives of the civil courts of the County of Schoharie. It split Philip Weiting's church through and through, but it is good to know that with sound sense and clear sanity he stood uncompromisingly for the position which modern thought has long since vindicated.

Nevertheless, his party was beaten in the courts and the opposition retained the church property. More than thirty years after in his farewell sermon he recounted the great controversy and estimated that counting the loss of property and legal fees, the cost to the church was not less than ten thousand dollars—a vast sum in a rural community eighty years ago. In that sermon in a single sentence he stated his opinion of the merits of the case—"This was a most wicked and unjust claim that we were compelled to pay." But pastor and church survived the great heresy, and long before his death all parties came to recognize the wicked folly of the quarrel.

Half of Mr. Weiting's ministry was darkened and embittered by doctrinal and denominational disputes and quarrels which he could not escape, and yet left to himself, they would have troubled him very little. His was not the type of mind to concern itself greatly with dogma.

He was essentially a preacher of righteousness. In a day when most laymen and many ministers looked with tolerance, and often with approval on the use of alcohol, he practiced total abstinance and urged it as a cardinal virtue. During the dark days of the Civil War, when some men were faint-hearted and some possibly of doubtful loyalty, he lifted up his voice to denounce the wickedness of slavery and the duty of preserving the Union.

The years of his ministry were crowded with duties and tasks beyond belief. His far-flung parish covered much of northern Schoharie County. In some ways, at least, this was the Golden Age of our farm country, and the remote sections had a much larger population than now. The number of families in his charge was large and the distances were long. As his fame increased, people came to covet the privilege of being married by him and to seek for their dead the honor of burial at his hands, and this brought to him labors beyond the regular round of his parish.

In his farewell sermon there is something of the note of honest pride of a man who lays down a great task well

done. It reminds us of Paul's tremendous declaration: "I have fought a good fight, I have finished my course, I have kept the faith." So in his valedictory, this wayworn man enumerates and catalogues something of his labors during those forty years. He received into church membership 1,250, baptized 1,300, solemnized 800 marriages and officiated at 1700 funeral services. He preached in one year 76 funeral discourses, in one week seven, in one day three. No wonder he cried, "What a multitude have gone before!" He counted "twenty-five distinct revivals of religion" which he had conducted, besides numberless occasions when he had assisted other ministers. Always, somewhere he was preaching, preaching, preaching. The number of miles he traveled—generally in the saddle—sometimes in his buggy wagon, was beyond all computation. Only the hard-driven old-time country doctor could equal him. Surely he had never spared himself or counted the cost. Thus he took leave of his people after forty years of service. Perhaps the man of iron was nearer spent than he knew, for only a year later he was dead. They were were simple country folk, who knew nothing of state funerals, but they buried him fittingly and like an old-time king.

Ours is a community where old habits and customs lingered long, and until a score of years ago when a man or woman died, we immediately tolled the passing bell, and plowmen on distant hillsides halted their team in the furrow and counted the slow strokes as they floated out over the land. We have ceased to do this—why, I do not know. I am sorry that a beautiful custom which linked us with other times has been allowed to fall into disuse. When Dominie Weiting died they carried him some nine miles to sepulchre, and an incredible number of mourners followed in his train. Then there was paid him an honor which I think is absolutely unique in the annals of our county. The way to burial led past several churches, and as each was reached in turn, the bell was tolled as the long procession passed in recognition of the fact that so well-beloved a man was on his last going.

In his parish, in the town of Sharon, remote from any church or hamlet and on a lonely road, is a cemetery where through many years and for many miles the farm folk have come to bury their dead. It occupies a great rolling drumlin that rises out of the Central New York Plateau, and woods and hills and dales and pleasant farm lands lie all about it. The cemetery itself seems a little bleak and windswept, perhaps, for it lies high, but it is most beautiful for prospect. On the horizon are the Adirondacks and the Catskills, and the tumbled and criss-crossed billows of the Hill Country of New York are at your feet. On the very highest point they buried the Great Preacher in the heart of his Kingdom.

It is a most fitting place for his grave, for the scenes of his triumphant labors are all around. Our rural landscape changes only slowly through long years. Doubtless the outlook to-day is very much the same as it was in his time. There are the fields and woods and farmsteads that were mapped in his memory, and the winding, leisurely country roads that he knew so well. Still the slow herds trail across the fields. Still the timothy meadows bow to the breeze and the young corn rustles and dances and gleams in the sunshine. Still the woodlands glow crimson and scarlet and gold in October days serene. Still winter covers all the smiling land with snow. Ever the miracle of the rolling seasons repeats itself again and again as it did during those forty years he gave himself to this community in service.

The trees and the fields and the cattle are with us yet, but there are not so many people. The church perhaps is no longer the unquestioned, dominating force in our country life which it was in his time. In some respects, at least, we have fallen on evil days. If he revisits the scenes of his life work I know he has some disappointments and some sorrows. But he was a great man in our midst for many years, and we are better and richer because he lived and wrought among us, and across the years his soul goes marching on.

"And there arose not a prophet since in Israel like unto Moses whom the Lord knew face to face."

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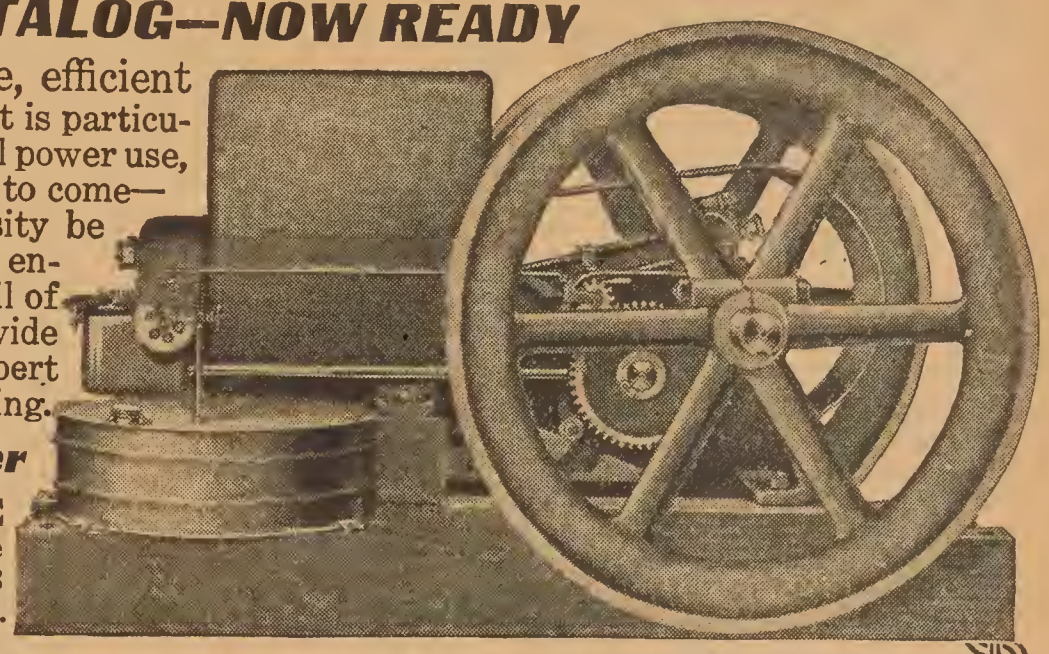

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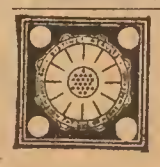

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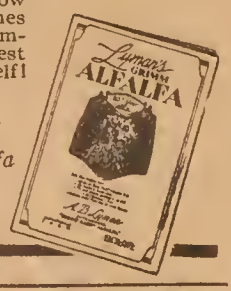

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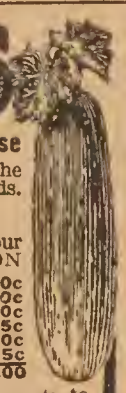

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Oversupply Hits Milk Price

Eastern Farm News From and For the Farmers

BOTH the dealers' and the producers' milk organizations report large increases in the supply of milk. The better prices have evidently encouraged farmers to take better care of their cows and to feed them more grain. This has materially increased the supply. Many cows, of course, freshen also at this time of the year. The market for milk used in Class 2 chiefly in the form of cream is badly over-supplied, with the result that the League has been obliged to reduce its Class 2 price from $2.90 per cwt. to $2.70.

AGRICULTURAL MEETINGS

The 35th annual convention of the New York State Association of County Agricultural Fair Societies will be held in the New Court House at Albany, N. Y., Thursday, January 18, 1923, with morning and afternoon sessions. In the evening the annual dinner will be held in the Hotel Hampton.

The following speakers are on the program: Commissioner of Farms and Markets, Berne E. Pyrke; Dr. E. E. Bates of Cornell University; Nat S. Green, Fair Editor of the Billboard; W. J. Vandebilt, Superintendent of Rain Department of the Hartford Fire Insurance Company. Round Table discussions on questions pertaining to fair management will follow the regular speeches. Prominent speakers will be present at the dinner. President Botsford will give an illustrated lecture on "The Wonderland, Alaska."

New York Agricultural Society Holds Annual Meeting

The 91st annual meeting of the New York State Agricultural Society will take place in the Assembly Chamber and Assembly Parlors at the State Capitol, Albany, N. Y., on January 16 and 17. This is the oldest agricultural society in the State, and was established in 1832. It is, in fact, the direct successor of the first agricultural association, organized in New York in 1791.

The program embraces discussion of the most important problems now affecting agricultural progress. The subject of rural education will be taken up and the report of the Committee of 21. The matter of farm finance, marketing and distribution, of interest alike to producer and consumer, have a prominent place on the program. The subject of radio and its farm use and value will be taken up, and part of the program will be broadcasted.

WESTERN NEW YORK NOTES

Forwarding statistics show that more celery has cleared western New York to date than at the same time last year, leaving less in cold storage, as the acreage was not far different from that of 1921. Over 170,000 crates are reported as being held in Wayne County. One year ago the county holdings at this time were in excess of 200,000 crates. Wayne County easily leads the Empire State in celery production.

In Orleans County the Farm Bureau has gone on record as in favor of a dog quarantine. The bureau recommends to the State Department of Farms and Markets that all canines be confined to the premises between the hours of sunset and one hour after sunrise daily for the next year, and that State Troopers be assigned to the work of enforcing such quarantine. The havoc of dogs among sheep flocks of the county calls the growers into a united demand for some relief from the menace.

One of the largest transactions in muck realty has recently been recorded in the purchase of a 500-acre tract near Savannah by Jacob H. Snyder of Sodus. Mr. Snyder has had much experience in this type of farming, at present owning one of the best celery farms in this part of the State.

Much satisfaction was caused in Steuben County this fall by the placing there of the Federal Potato Inspection Service, in charge of Robert Bier of Washington and H. S. Duncan of Sodus. When 700 cars had been inspected the shippers were so pleased with the service that it was openly advocated that the service should be extended.

Trappers hereabout report that not in years have fur-bearing animals been more plentiful than they are this season. The swamps and streams are said to contain many muskrats and an occasional mink, while skunks are reported to be very plentiful.—ALVA H. PULVER.

Wyoming Co.—On account of the mild weather we had this past fall, farmers were able to clear up their out door work fairly well. The excellent late pastures we had seems to have lessened the demand for hay. At present there is little or no market for potatoes now quoted at 40 to 45 cents a bushel. Coal is very scarce and high-priced. Farmers are drawing green wood for $5 and $6 per cord. There is a fair demand for fresh cows and near springers. Dealers are paying 45 cents for dairy butter and 60 cents for strictly fresh eggs.—L. M. F.

Ontario Co.—The month of December was very pleasant with a small amount of cold weather. Stock is doing well, a few head of stock cattle being fattened. Very few hogs or lambs are being fed. Farmers are troubled in getting enough coal to keep them going. The grange work in the county is in a prosperous condition. Farm produce is low in comparison with manufactured goods.—E. T. B.

Chautauqua Co.—Farm Institute meetings have been held throughout the county. Attendance has been fair and interest has been keen. Many farmers are talking of selling their cows and going into the poultry business. Dairymen are voicing much dissatisfaction with the milk situation. Prices realized at the condensaries are less than cheese factory prices and requirements are much stricter.—H. A. NORMAN.

Genesee Co.—Wells and springs that have never been known to fail this summer have gone dry. The situation is very bad especially for those who are feeding lambs and live stock. Small streams have been down to bed rock for a long time, and creeks have been running at dry summer level. During the last week in December many farmers are drawing water a considerable distance in many cases from farm creeks. —W. H.

Allegany Co.—Milk is the big topic of discussion now-a-days. It is impossible to say just which way it is going. There are a lot of potatoes being sold at from 45 to 50 cents a bushel. Not much hay is being sold; it is now bringing around $15 a ton. Beans are bringing $8 to $10 per cwt.—T. E. B.

ALONG THE MOHAWK AND THE HUDSON

Montgomery Co.—Farm Bureau and Farmers Institute meetings are being held. Milk prices are generally satisfactory. No hay is moving to market as there is practically no demand and prices are extremely low. Buckwheat is now selling at $1.90 a cwt. With the price of milk feeds, buckwheat should bring no less than $2. Milk seems to be the only product that is bringing ready money regularly. As a result only milkers are bringing a good price. Strippers and old cows are way down, bringing as low as $10 to $15 depending on size. During the middle of December veals and Bob calves were in active demand. Eggs are now selling at 60 cents a dozen. Beef, 10 to 12 cents, pork, 12 to 14 cents. Subscribers appreciate the improvement in the editorial department of the American Agriculturist. The acquisition of Mr. Eastman and Jared Van Wagenen are valuable assets. The efforts of Dean Cook have long been acknowledged the bulwark of the paper, his letters beaming with practical information. We consider the Agriculturist a valuable paper in every household.—G. P. VAN VALKENBURG.

Washington Co.—The first real blizzard reached here on December 29. Many roads drifted, fully stopping milk teams and the U. S. Mail. Things are

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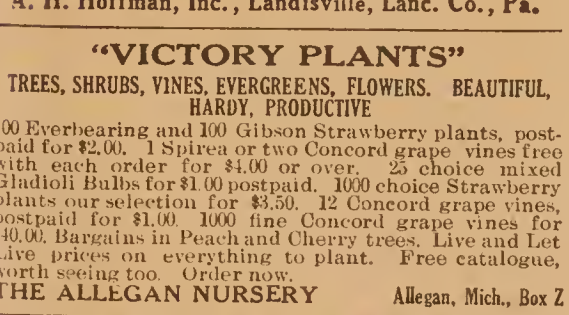

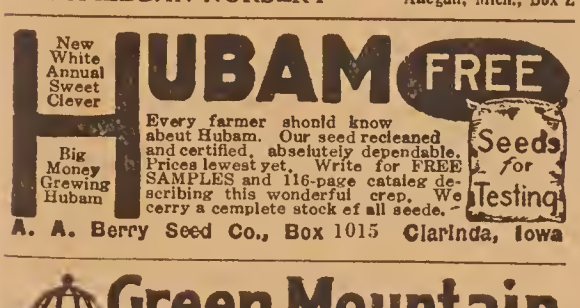

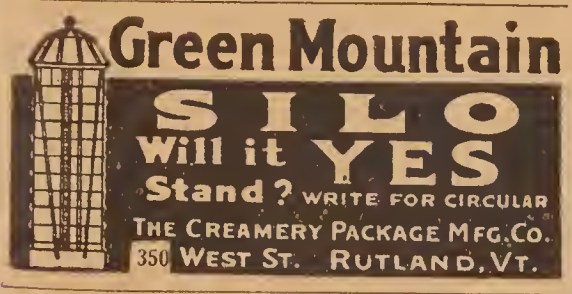

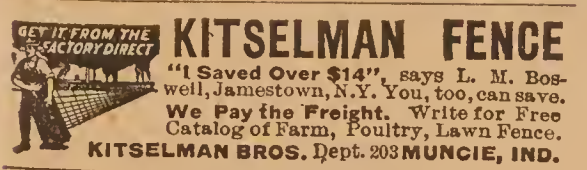

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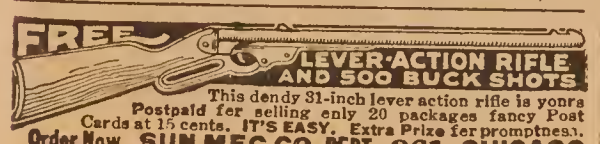


quiet in general. Hay is selling at $14 to $16 F. O. B., rye straw $20. Not much enthusiasm over the milk business, fresh cows, feed and help are high. Many farmers are producing lots of eggs. Stores are now paying 50 cents a dozen. There have been several auctions, but sales are not as satisfactory as in recent years.—F. P. P.

Schnectady Co.—We are all enjoying good sleighing and the ground is dry. Most farmers are drawing water for their stock. Cutting wood is the order of the day. Butter is 45 cents a pound, eggs, 75 cents a dozen, buckwheat, 85 cents a bushel. Hay is bringing $13 to $14 a ton, beef, 7 cents a pound.—JOHN W. GORDON.

Orange Co.—December was very cold. Since the middle of the month we have had excellent sledding. Wells, ponds and streams are dry on many farms, and farmers are compelled to draw or haul water for stock. Cows are selling at public sales for around $125. Potatoes are bringing $1.25 a bushel, eggs 75 cents a dozen. "Brooks Bridge," the last covered bridge in Orange County and a landmark since 1840, has been torn down and replaced by a steel and concrete structure.—Mrs. W. Y. SEAMAN.

NORTHERN NEW YORK NOTES

Jefferson Co.—Hay is now selling from $12 to $15 according to quality and the buyer. Oats brought 48 to 52 cents at the car door during the latter part of December. Many shipments are being made to farmer cooperatives. The chief subject of discussion is the future of the milk business. It is the chief topic of conversation among poolers and non-poolers. The county conference of grange masters and lecturers will be held in Watertown on January 16 to discuss the 1923 program. Discussions of the factors entering into the make-up of farm business and suggestions for local application were held in four communities during the latter part of December by the farm and home bureau and grange. Another series of these meetings will be held during the week of January 22. The change in the management and policy of the American Agriculturist is eliciting much interest and favorable comment.—W. I. ROE.

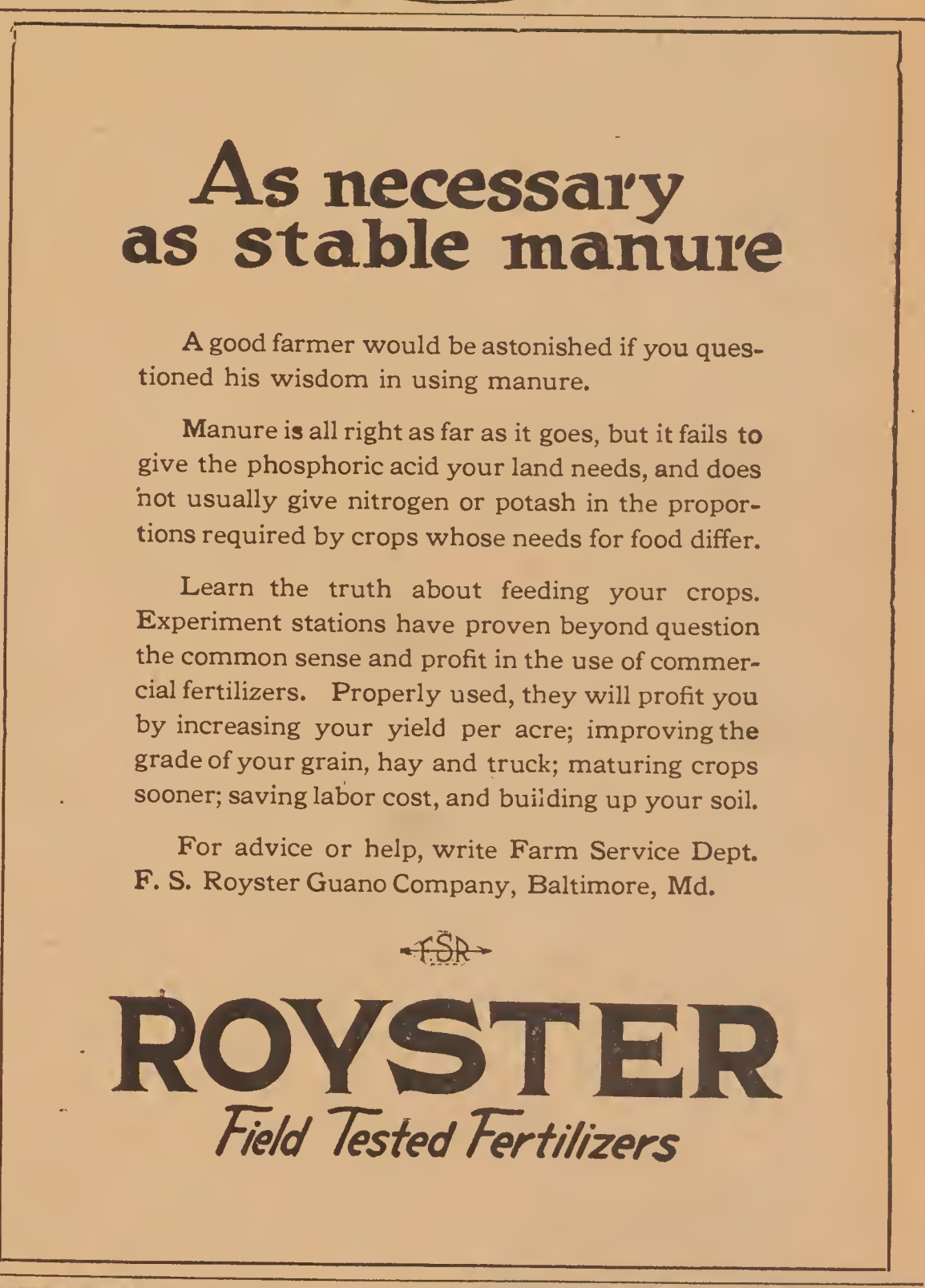
Franklin Co.—A special drive is being made for new members by the Farm Bureau. There seems to be more satisfaction now with the price paid for dairy products than in some time. More farmers seem to be going into winter dairying. The potato market is most discouraging. Shippers paying only 40 cents. A great deal of wood is being cut and sold. It is bringing $3.50 to $4.00 a cord.— H. T. J.

IN CENTRAL NEW YORK

Onondago County—At the annual meeting of the Onondaga County Farm and Home Bureau Association held on December 1 the new by-laws were adopted. The membership fee for the Farm Bureau was left for the time being at $3. The election of the executive committee was handled in accordance with the new by-laws, the following men being elected: For three years, A. L. Brockway, Syracuse; R. E. Deuel, Manlius; for two years, W. A. Parsons, Geddes; W. T. Thorne, Skaneateles; for one year, Charles Hotchkiss, Amber; James Alvord, Kirkville; John W. Brown, Warner; C. M. Goodspeed, Skaneateles.

The annual meeting of the members of the Accredited Herd Association was held in the Assembly Hall of the Court House Tuesday, December 19. The records show that a total of 135 herds have been under inspection, comprising 3,600 head of cattle. Of this number 858 animals reacted to the test and were removed from the herds. Twenty-four herds were accredited, six times as many as last year, and 22 herds have passed the first test.

Taking a farm inventory is a short, simple job and a very paying one. Incidentally it is an extremely interesting one also for it always brings out some surprises about the farm business. Your State College of Agriculture or your County Agent will furnish the few directions needed, and the colleges usually also have the blank forms for setting down the items.



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At the International Live Stock Show at Chicago, December, 1922, exhibits from CANADA were awarded the following prizes:

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Grand Championship and First prize for Oats, winning 24 out of 35 prizes awarded.

First, 2nd, 3rd and 4th prizes for Peas, winning 4 out of 5 prizes awarded.

Grand Championship and First Prize for Rye; first prize for two-rowed Barley.

Grand Championship and Sweepstakes for Clydesdale Senior Stallion; 1st prize for Clydesdale 4 and 6 horse teams; 1st prize for Clydesdale Mares 3 years and under.

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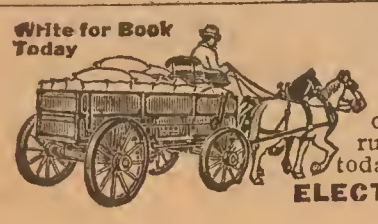
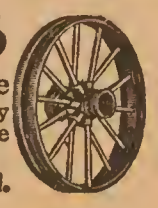


FARM WAGONS



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Pullets For Winter Laying

MOST of us at this season are laboring with one object in view—namely, more winter eggs and how to get them. Then, no two poultry raisers are following, altogether, the same methods whereby to obtain them. But I am, indeed, glad to note that each year more and more poultry owners and farmers are learning that an important step toward a greater egg yield is the keeping of first-class or pure-bred stock.

The breed you have—if it is a pure-bred—makes little difference, whether Wyandotte, Plymouth Rocks, Rhode Island Reds or Leghorns. Any of them, properly fed and cared for, will prove profitable layers, although the majority of poultry authorities agree that the Leghorns are the best layers. But on the farm, where poultry raising is only a side-line, I know from experience that many breeds other than the Leghorns will prove to be more profitable. I prefer the Rhode Island Reds or Plymouth Rocks.

It has been my experience that pullets hatched in April or May make the best winter layers. But bear in mind, if they are neglected and improperly fed during the growing period and thereafter they will not pay for their keep through the winter, no matter what the breed may be. We try to so arrange it that the pullets are not allowed to range with the other fowls of different ages, and especially the young cockerels. Crowding in small pens or houses is particularly bad. Experience teaches us that there is no profit in crowding poultry of any age or description. However healthy and profitable your flock may be, as soon as they are crowded into pens or houses that are too small, they will soon become the most diseased and unprofitable flock ever owned.

I am fully convinced that pullets confined in roomy pens will thrive far better than when allowed to run with the rest of the flock. If they are penned, or on free range, don't fail to keep a good supply of fresh, clean water, grits or coarse gravel always before them. There is far more danger in not giving the growing and laying fowl sufficient food than in overfeeding. Mash always before the birds is most desirable.—W. H. HARRISON.

COMING EVENTS

Agricultural Week, Trenton, N. J., Jan. 15-20.

Amer. Cheviot Sheep Society, Cooperstown, phia, Pa., Jan. 27.

Amer. Cranberry Growers' Assn., Philadel-N. Y., Dec. 29.

Annual Fruit Exhibit, Conn. Pomological Society, Hartford, Conn., Jan. 23-27.

Boston Market Growers' Assn., 12 S. Market St., Boston, Mass., Jan. 20.

Boston Market Growers' Assn., 12 S. Market St., Mass., Feb. 17.

Boston Market Growers' Assn., 12 S. Market St., Boston, Mass., March 3.

Boston Market Growers' Assn., Essex Co. Agr. School, Mass., Feb. 3.

Boston Market Growers' Assn., Anson-Wheeler Estate, Concord, Mass., March 17.

Conn. Vegetable Growers' Assn., Hartford, Conn., Jan. 23-24.

Conn. Winter Exposition, Hartford, Conn., Jan. 23-27.

Co-operative G. L. F. Ex., Mizpah, N. Y., Feb. 5.

Cornell Farmers' Week, Ithaca, N. Y., Feb. 12-17.

Dairymen's League Co-op. Assn., Utica, N. Y., June 21.

Eastern States Farmers' Ex., Springfield, Mass., Feb. 5.

Farm Products Show, Trenton, N. J., Jan. 16-19.

Farmers' Equity Union, Hotel Sherman, Chicago, Ill., Jan. 17-18.

G. L. F. Exchange, Syracuse, N. Y., Feb. 5.

Mass. Dairymen's Assn., Boston, Mass., Jan. 18.

N. J. Beckeepers' Assn., Trenton, N. J., Jan. 18-19.

N. J. Farm Week, Trenton, N. J., Jan. 16-19.

N. Y. Fed. of Agri. Soc. and Floral Clubs, Ithaca, N. Y., Feb. 14.

N. Y. State Assn. of Co. Agr'l Soc., Albany, N. Y., Jan. 18.

N. Y. State Assn. of Union Agr'l Soc., Albany, N. Y., Jan. 18.

N. Y. State Grange, Syracuse, N. Y., Feb. 5-9.

N. Y. State Hort. Soc., Albany, N. Y., Jan. 16-17.

N. Y. State Hort. Soc., Eastern Meeting, Poughkeepsie, N. Y., Feb. 21-23.

N. Y. State Nurserymen's Assn., Rochester, N. Y., Feb. 8.

Nat'l Wool Growers' Assn., Spokane, Wash., Jan. 24-26.

New England Milk Producers' Assn., Boston, Mass., Jan. 30-31.

Ohio Farmers' Week, Columbus, O, Jan. 29, Feb. 3.

Union Agricultural Assn., Boston, Mass., Jan. 16.

Poultry Shows

Madison Square Poultry Show, New York City, N. Y., January 24-28.

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The Kind of Cow That Sells

Current Experiences on a Dairy Farm—H. E. Babcock

NOWADAYS buyers of dairy cows, whether of grades or purebreds, seem to be looking for size and type. In fact, many seem to be carrying the search for the straight top line and the well balanced udder so far that they lose sight of other characteristics more important from a production point of view. One prominent breeder of purebred Holsteins rather sarcastically summed this up when he said that by the time sale committees got through picking animals from his herd for State sales he wouldn't have any poor producers left.

While the pendulum may have swung too far, no real dairyman regrets the desire on the part of buyers for a better looking as well as a good producing dairy cow. As we have observed the really skillful buyers select animals from our herds we have noticed that they were willing to pay good money for animals which possess these qualifications: First, a cow large for the breed; second a cow with a straight topline and a well-balanced udder; next a cow with good milk and udder vein development. Very few feel of the cow's hide—the few that do are the experts.

How Much is This Cow Worth? Born 1915, sound; fresh October 1, 1922; milking 60 lbs. a day; bred again. Does Mr. Babcock inventory her correctly?

I have heard of a prominent Holstein breeder, one of the pioneers, who was blind, yet who was a master judge of a cow. I believe it would be better for all of us if we abandoned the use of our eyesight occasionally and depended more on our finger tips. Some day spend a little time to note the difference in the feel of the hides of your good and poor cows. Then watch the really skillful buyer operate the next time he looks over your string of milkers.

TAKING THE INVENTORY

Sometimes when I have been asked if we would make any money on the farm I have replied: "It all depends on how optimistic we feel when we inventory." And though said in jest, there is a world of truth in that answer.

On a dairy farm there is sometimes more money invested in cattle than in the farm itself. Even with grade cattle values fluctuate considerably and are largely dependent on the condition of the animals, the price of milk, and the financial state of dairymen. When purebreds are considered—particularly on farms where advanced registry testing is carried on—the correct determination of values at inventory time becomes a real problem.

In business the usual procedure is to inventory at cost or market, whichever may be lower. An attempt to apply this principle to valuing cattle at once brings up the question, what is the market?

Public Auction Prices a Guide

For dairy cattle, grades or purebreds, there is probably no better gauge of values than the prices paid at public auction. Incidentally, perhaps here is the real reason why farmers always go to an auction. At least it will make a good reason to tell your wife the next time you go.

At the public auction, provided it is on the square, men register their collective judgment as to the worth of an animal. By selecting typical animals as to age, condition, size, and quality, and by noting what they bring, a man can get a pretty good idea of the value of similar animals he may own. Auction prices should always be discounted from five to fifteen per cent, however, because it usually costs that much to advertise and sell the animals.

Another good gauge of prices is the offers that buyers make for animals. Usually, however, trade is not active enough to draw much information from this source and in a large herd there are always some dairy animals which are unsalable as such and that at a given time are only worth beef prices but which, if carried along, will recover their dairy value. Taken all in all the question is a complex one.

Practical Examples of Values

In an endeavor to get a correct inventory this year I have selected typical animals in our herds and traced back our values for the past two years. Here are the way the figures look:

Flossie Lehigh, purebred Guernsey, born 1911. 1921 value $250, 1922 value $225, 1923 value $200. This cow a good producer and a steady breeder is getting old. We would not sell her for $200, but on the other hand few men would buy her for that figure.

May, grade Guernsey, born 1915. 1921 value $150, 1922 value This cow, a nice $100, sold $150. typy large cow which would give 50 lbs. a day was just going dry when inventoried Jan. 1, 1922.

Flossie of Meadowbrook, purebred Guernsey, born 1915, cost 1921, $275; 1922, $200; 1923, $35. A number of ailments have prevented this cow ever doing anything for us. She may come through, but to-day we are only safe in inventorying her at beef value.

Mary, grade Holstein, born 1915; 1922, $150 (cost); sold for $225. An example of a top-notcher, well bought, correctly inventoried, and well sold.

Korndyke Sadie Pietje, purebred Holstein, born 1919; bought 1921, $175; inventoried 1922, $175; 1923, $175. This cow is growing better, but the market on purebred Holsteins of her class is weak, hence we shall make no increase in value.

Dutchess, grade Holstein, born 1915; bought 1922, $150; inventoried 1923, $100. This is the cow shown in the picture. She is sound, freshened October 1, is milking 60 lbs. a day. Is our inventory value correct?

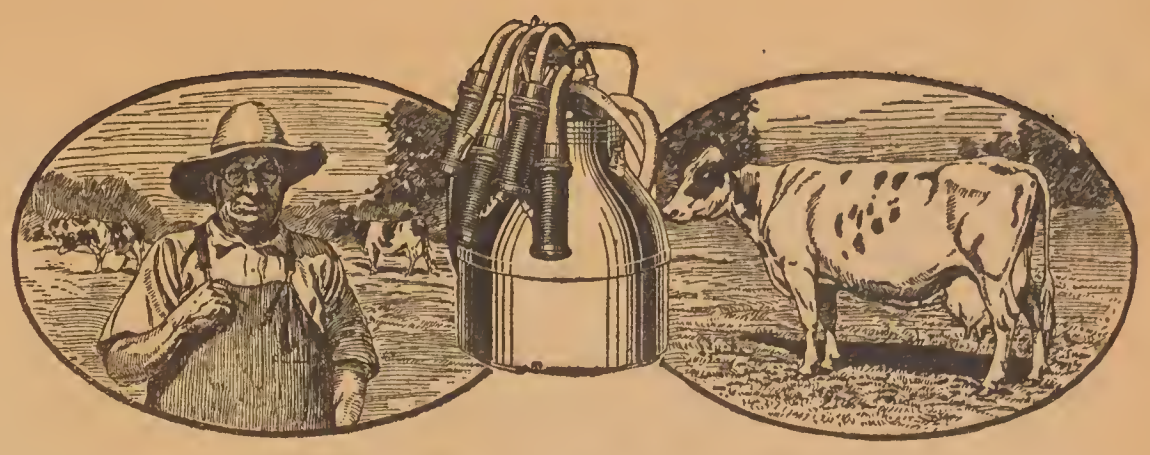
Our Conclusions as to Values

Taking our herds as a whole, we will value about as follows this year: Purebred Guernsey cows, four to ten years old, of good size and type, will average about $250; good grade Guernseys $150. Purebred Holsteins, four to eight years old, which will milk 12,000 lbs. a year or better, we will value at $200; grades of the same quality $100 to $150. A few smaller grade Holsteins which we bought this fall at auction for an average of $95 apiece, we shall put at $75 each.

Where we are doing advanced registry testing we shall make no recognition of the increased values that may be due to records. We have yet to realize on such values, and bitter experience has taught us that there is many a slip between the record and the sale check.

In herds where there is tuberculosis we should value the cows at the State indemnity figures plus estimated carcass values. We recognize that these estimates are conservative, but we don't like to "kid" ourselves into making money; we had much rather earn the cash.

Retained Afterbirth—Often follows underfeeding. In well-fed cows it is usually an indication of diseased genital organs. It is often associated with contagious abortion. Give a warm bran mash a couple of hours after calving, keep the cow warm and give her a physic if the afterbirth does not come away readily. If it does not come away in about six hours, attach a two-pound weight to it. If, after forty-eight hours, it is still retained, it should be taken away at once by an experienced person.



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Mr. R. R. Stevens, of Bowmanville, Ont., with the assistance of a De Laval Milker, just recently made a world's record with his purebred Holstein cow *Orndyke Pietertje Korndyke,* who produced 1,122.5 lbs. of butter and 24,119 lbs. of milk in 305 days. During the entire period she was milked with a De Laval Milker. Mr. Stevens says:

"While *Orndyke* is a wonderful animal and would make a splendid showing by hand milking, I can truthfully assert that the use of the De Laval Milker throughout this test has made it possible for her to show this wonderful production. I have been using the De Laval Milker exclusively for two years."

Mr. Stevens also has other champions in his remarkable herd, most notable of which are *Ormsby Jane,* junior two-year-old milk champion of Canada, and *Jane DeKol of Glen Rae,* senior two-year-old milk champion of Canada, both of which have never been milked in any other way but with a De Laval Milker. Mr. Stevens says:

"I am very proud and naturally much gratified over my success in producing these champion animals, but it is only right that I should give the De Laval Milking Machine its full dues as the most important agency in the development of these records. These facts are all beyond question and should settle the matter conclusively for those intelligent dairymen who are asking the question as to whether the De Laval Milking Machine will pay them."

Thousands of De Laval Milker users in all parts of the country and with all breeds of dairy cattle will subscribe to Mr. Stevens' statements, many of whom have also made splendid records.

You may not be interested in making production records but you certainly want to get the most milk from your cows, in the cleanest condition, at the least expense, and you can do this with a De Laval better than in any other way. Sold on easy terms so that it will pay for itself while you are using it.

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REGISTERED CHESTER WHITE PIGS. Only a few left, "Prince Big Bone" blood. ALLAN MORTON, Ashville, N. Y.

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CHRISTMAS PUPPIES—English and Welsh Shepherds. Man's best friend; always alert, watchful and fearless; a faithful companion born with herding instinct; a pup can be trained in six months; order early for first choice. GEORGE BOORMAN, Marathon, N. Y.

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WE SOLICIT LARGE AND SMALL country consignments of beef, horse hides and kindred lines. Prompt and fair returns. Write for tags. PENNSYLVANIA HIDE & LEATHER COMPANY, Scranton, Pa.

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SITUATIONS WANTED

FARM MANAGER OR SUPERINTENDENT open for engagement about Feburary 1. Nine years executive experience. Familiar with large operations. Experienced in handling men and machinery, care and management of livestock and poultry, cow testing, orcharding, general farm crops drainage and marketing. Would like to hear from those having first-class business proposition. Address box B. K., AMERICAN AGRICULTURIST, 461 Fourth Avenue, New York City.

PRACTICAL—experience—farmer wants—position—as manager on stock farm, can furnish references. Box No. 47, R. D. No. 2, Allenwood, Pa.

MALE HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

FIREMEN, BRAKEMEN, for railroads nearest their homes—everywhere, beginners $150, later $250 monthly (which position?). RAILWAY ASSOCIATION, Desk W. 16, Brooklyn, N. Y.

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This is YOUR Market Place. It helps you to sell, buy, rent or exchange; to secure farm help or to find work. The address must be counted as part of the advertisement, and each initial or number counts as a word. Because of the low rate to subscribers and their friends, cash must accompany your order. Copy must be received by Monday to guarantee insertion in the following week's issue. Phrase your wants, as others have secured your interest, by following the style of the advertisements on this page. Classified advertisements are inserted at the rate of five cents a word per insertion; no single advertisement accepted for less than one dollar. Address all communication to:

American Agriculturist, 461 Fourth Avenue, New York City

TOBACCO

HOMESPUN TOBACCO. Chewing, 5 pounds $1.75; 10 pounds $3; 20 pounds $5. Smoking, 5 pounds $1.25; 10 pounds $2; 20 pounds $3.50. Send no money, pay when received. COOPERATIVE TOBACCO GROWERS, Paducah, Kentucky.

KENTUCKY SMOKING TOBACCO, aged in bulk, mild and mellow; 5 pounds $1.25; 10 pounds $2; 20 pounds $3.50; satisfaction guaranteed. KENTUCKY TOBACCO GROWERS', Lynnville, Ky.

NATURAL LEAF TOBACCO. Chewing, 5 pounds $1.75; 10 pounds $3; 20 pounds $5. Smoking, 5 pounds $1.25; 10 pounds $2. Pay when received. TOBACCO GROWERS' UNION, Paducah, Ky.

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LEAF TOBACCO—Chewing 4 lbs. $1.40; 12 lbs. $3.60; Smoking 4 lbs. $1; 12 lbs. $2.40. Collect on Delivery. KENTUCKY TOBACCO GROWERS, Sedalia, Ky.

TOBACCO — 10 lbs. chewing, $3; smoking, $2.50; second grade smoking, $1.50. Pay for tobacco and postage when received. FARMERS' EXCHANGE, Hawesville, Ky.

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BUY YOUR CIGARS direct. 50 LaColumnas, prepaid for $1.50. Agents wanted. HAVANA SMOKEHOUSE, Homeland, Ga.

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WANTED—To buy, or rent with option, farm suitable for retail dairy business. Give full details of farm; size of farm and price; size of and distance to selling point; price of milk at retail. JOHN W. PAVEK, Highland Falls, N. Y., P. O. Box 44.

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LEARN AUCTIONEERING AT HOME—Full course, diploma. Free catalog. AUCTIONEERS' SCHOOL OF EXPERIENCE, 1215 Arlington Ave., Davenport, Iowa.

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ORANGES, direct from our groves, fancy box assorted, containing 50 oranges, 50 kumquats, 12 grapefruit, 20 Tangerines, jar fruit jelly, $3.75. Express prepaid, reference postmaster here. Growers' Fruit Co., Tampa, Florida.

WANTED—1,000 nice thrifty chestnut Poles 1½ to 2 inch at butt end. What can you furnish for quick cash. JOSEPH ROGERS, JR. & SON, Farmingdale, Monmouth Co., N. J.

FOR SALE—Fordson Tractor with pulley and extension rims, Oliver two bottom plow, double disk harrow. Good condition, priced very low. G. F. GIBSON, Clyde, N. Y.

FOR SALE—Letz feed grinder with bagger, right size for Fordson Tractor, in A-one condition (new); Auto power jack for belt power. FRANK FOOTE, Delanson, N. Y.

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CRUMB'S STANCHIONS are guaranteed to please the purchaser. They are shipped subject to trial in the buyer's stable. They are right. Send for booklet. WALLACE B. CRUMB, Box A, Forrestville, Conn.

WOMEN'S WANTS

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AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free sample case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

A Service for Veterans

WE all start in life meaning to be successful. It is hard to imagine a young boy just tackling the problem of finding his place in the world deliberately expecting to become a public charge, or to be taken care of by relatives.

Several insurance companies have collected some statistics which are very interesting, and which show that the opportunity for success does not come to all alike. Of 100 men starting out in life at the age of 25 years, one at the end of 40 years will be wealthy, four will have incomes, five will have earning power, 36 will be dead and 54, or more than half, will be dependent on their relatives or charity.

It is the U. S. Veterans' Bureau which especially calls to our attention the striking figures just quoted. This Bureau extends to veterans with a record of service to the government an insurance which all too many have disregarded. During the war, Congress passed a piece of progressive legislation which had no parallel in our previous history. The idea—to insure under the most liberal terms those who served in government forces—was one which carried great benefit not only to the men themselves, but to their families and dependents. Yet a great number of veterans have overlooked the opportunity which this bill gives them to protect themselves and their families, and it is for this reason that the Veterans' Bureau is making an effort to line up the delinquents and help them to their duty to themselves and families.

Very Liberal Renewal Terms

Policies will be renewed if they have been allowed to lapse, or new ones will be issued on extremely liberal terms. Premiums are charged at rates lower than any other insurance which gives the same benefits. The premiums may be arranged for endownment policies paid during the lifetime of the individual or for policies made out to the benefit of relatives after death.

There are six different sorts of policies, and they all contain such liberal features as the allowance of 31 days for the payment of premiums without interest; application of premium dividends earned to the principle; no obligations of residence or occupation, and so forth.

Although Americans are apt to be extremely careful in looking out for their property, they are not nearly so careful in looking out for themselves. A man is far more apt to insure his building against fire than to insure his own life for the benefit of those dependent on it. Perhaps this is due to the natural human feeling that something will happen to the other fellow, but that we ourselves are immune. At any rate, when the table showing what happens to the 100 men is compared with the fire risks there is an interesting contrast. Fifty-four out of 100 men would at the end of 40 years be dependent on outside help. Yet, out of 1,260 homes insured, 1,210 will be standing intact at the end of 50 years. In other words, only 50 houses out of 1,260 will be destroyed and the insurance collected, whereas more than 50 men out of 100 will be in need of financial assistance.

How to Become Reinstated

American Agriculturist is therefore very glad to join the government authorities in urging veterans of the World War to avail themselves of the insurance thus extended to them. All those who have not taken out the policies to which they are entitled are urged to write to the U. S. Veterans' Bureau at Washington, D. C. The application need only say, "Please forward information relative to the reinstatement of my insurance." Sign it, giving your name and address in full, certificate number and serial number of your insurance if you carry any, and your rank and regiment at the time of your discharge. State also whether you are now incapacitated.

A USELESS BOOK RETURNED

Mrs. F. J. F. of New Jersey, was unable sometime ago, to resist the blandishments of a salesman with a medical book. She agreed to take it finally, although at first she refused to take it as she had one along the same line. His assurance that they would guarantee the return of her money finally convinced her. Mrs. F. soon found the book quite useless to her. She wrote the company, but was told that she would have to allow a year to elapse before she could claim any refund. As she has the support of four small children on her hands, she felt that she would like to have the $8.75 at once.

The company at the solicitation of the American Agriculturist, agreed to waive their usual requirements and at once sent her the money order for the full amount. Mrs. F. who had previously written us that the American Agriculturist was extremely valuable, sent in her renewal of her subscription and expressed her gratitude and appreciation.

SPECULATION AT THEIR BEST

Financial Department: — Would you consider the C. L. Chester Productions, office in the Candler Building on 42d St., New York City, a good investment for two thousand dollars? The Chester Production is to be enlarged and merged with a new concern to be known as the Wheelers' Corporation of America. This new concern is issuing notes or bonds, bearing 8% interest payable May 1 and November 1, in denominations of $500 and $1,000.—W. L., New Jersey.

We do not recommend this investment. The motion picture business at its best is very uncertain. We have been unable to get a financial statement from the company. You would do much better if you considered good public utilities.

LEAVE THIS KIND ALONE

Financial Department:—Do you believe it is safe to put a share in the United Stores of Pennsylvania?—Mrs. F. H., Pennsylvania.

We have no record of this company. A receiver was appointed for the United Auto Stores in February 1922. We are informed the company is about to be reorganized. Better leave all such propositions alone.

. . .

Choosing the Farm Radio

Factors That Determine the Set for Best Results

As announeed recently. Amerlean Agriculturist has made arrangements with several radio experts to prepare special articles on buying, making and operating the radio. These articles are in reality a progression and when complete will constitute a fairly comprehensive treatise on the construction and operation of the radio. Readers who are interested in radio should keep these articles especially, in order to refer baek to previous instructions. This is the first of the series and is written by Brainard Foote, radio expert on the staff of the New York *Evening Mail.* During the war Mr. Foote was Master Signal Electrician in the United States army. Readers of Amerlean Agriculturist who are interested in radio and desire information on the construetion or purchase of apparatus are invited to submlt their inquiries to the Radio Department of the American Agrieulturist.

AS a fad and novelty, radio has had its rise and its fall during the past year. As an indispensable aid to business and speedy exchange of information it is now finding its true position. The city dweller has experimented with radio, wasted money thoughtlessly, while the farmer has wisely waited for radio to reach a settled basis before entering a field which holds such bright prospects of pleasure and profit and yet which may be a thorough disappointment through unreliable guidance.

By virtue of location, the farmer has an immeasurable advantage over the city man as far as actual results are concerned. While the countless steel structures and electrical wiring systems of city and suburb greatly weaken the radio impulses before they reach aerial wires strung upon apartment houses, no such obstructions oppose the operation of radio in the country. Thus a set that is only fairly sensitive will bring in dozens of broadcast programs every evening in a country location, and the user of the set may jump at will to the one he likes the best.

Serves Many Practical Purposes

While the farmer's radio outfit will be used more for entertainment than for any other purpose, there are several utilitarian features which a live-stock raiser or produce grower finds of utmost importance. Practically all of the important broadcasting stations and especially those in agricultural districts, broadcast stock market reports several times daily. Many farmers have found these of incalculable value in selecting the psychological time for shipment.

Radio information of this character is far superior to the telegraph not only in speed but in completeness. Then for news of the nation and of foreign countries, radio is often several days ahead of metropolitan newspapers, since important happenings are broadcasted immediately. Farm bureaus are now making extensive use of radio to supplement their regular meetings. Advance information of the spread of an insect pest, or plant disease, is given along with late bulletins on methods of control. Many colleges now are including lecture series broadcast on definite schedule as a part of the college curriculum. Daily weather reports are of value as well.

Factors Determine the Choice of a Set

As a comfortable and convenient form of entertainment, there is little that will compare with radio. Radio will while-away long winter evenings, will provide an outlet for the energy of restless son or daughter, and will bring from hundreds of miles away the songs and stories of a dozen different cities. Cold weather is a tonic for radio waves, and thus, in winter when the farm folks have most time on their hands, they may receive over the longest distances and hear the greatest number of broadcasting stations. It is then that they may "tune in" WWJ of the Detroit News and receive a dance program; or pick up KYW of Chicago, broadcasting an opera from the Chicago Opera House; or with a shift of the dial catch WEAF in New York City.

The choice of the farmer's radio outfit is a matter deserving careful consideration together with the conditions under which the set will be operated. How near is the nearest broadcasting station? How near are the broadcasting stations in which he is most interested? Has he a clear stretch of about 125 feet available for an aerial? Does he wish to listen with telephone receivers on his head or would he prefer to hear speech and music around the room as with a phonograph? Has he facilities for having a storage battery charged or would he like to use the new style of vacuum tubes which are lighted by dry batteries? Are there any commercial coast stations within 25 miles exchanging messages with ships which would be likely to interfere with clear reception of the message?

If there is a broadcasting station not over 20 miles away, the simplest form of receiving set is the "crystal" set using the "crystal detector" which gives satisfactory results with head telephones. No batteries are needed and there is no expense for upkeep. The crystal is a mineral so employed that it has the power to transform the radio impulses picked up by the aerial wire into intelligible sounds in the head telephones.

Tube Set More Sensitive Than Crystal

The vacuum tube is a far more sensitive detector than a crystal, when connected in what is known as a "regenerative" circuit. It is so called because the instruments are connected to use over again some of the current flowing through the head telephones. A "non-regenerative" vacuum tube is not greatly superior to the crystal. But when "regenerative" the reliable working range is about 40 miles daytime and 200 miles at night. Darkness has a beneficial effect on radio waves so that distances up to 1000 miles are usually covered by a regenerative one-tube receiving set in a country location.

Vacuum tubes may be added to "amplify" the signals or increase their sound as picked up on the detector. In general, any broadcasting heard clearly with headphones on one vacuum tube may be amplified or intensified by two additional vacuum tubes so that a group of people may hear it without wearing the telephone receivers. Then a horn may be placed over the receivers to form a "loud speaker," or the phonograph may be pressed into service for this duty. Either of these will give as good results as the loud speakers on the market which use an ordinary type of headphone. There are however, loud speakers using telephone reproducers of especially heavy build which will do the amplifying job somewhat more satisfactorily.

Two Classes of Tube Sets

There are two general classes of vacuum tube receiving outfits. Where there are no broadcasting or commercial stations nearer than 30 miles, a simple form of set may be used. This is called the "single circuit," and has one or two control knobs. It is easy to operate, and quick. However, if there are two nearby broadcasting stations, let us say within 30 miles, and some commercial stations as well, it is advisable to make use of the other type of set known as the "two-circuit." While more complicated in adjustment, it is far more selective and capable of eliminating or "tuning out" practically all unwanted stations. Either of these may be supplied with additional vacuum tubes in a unit, termed a "two-stage" amplifier. If standard vacuum tubes are employed, a six-volt storage battery of at least 80 ampere-hours capacity will be needed, but if the new "dry-cell" tube is desired, results will be not quite as good with the amplifier, and dry batteries are used. There is also a form of amplification in which vacuum tubes are used to amplify the radio impulses before they are made audible by the detector. This is "radio frequency" amplification, and will increase the strength of distant signals. Such additional expense need not be undertaken by the country dweller, since he is unhampered by poor location.

A Word About Costs

A home-made simple crystal set, including all accessories, should not exceed $15 in cost. A good set of this type may be purchased for about $25. A single tube regenerative receiver, with all accessories, should amount to about $40 if home-made and about $75 if purchased outright. With the two-

(*Continued on page* 39)

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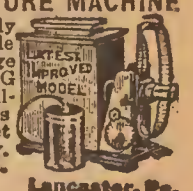

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Is the Husband or Wife to Blame?

Is the husband or wife to blame for the tragedy of too many children?

Margaret Sanger, the great birth control advocate, comes with a message vital to every married man and woman.

THOUSANDS upon thousands of women today marry with the bloom of youth upon their cheeks. A few years of married life rub the bloom off. Children come, too many. And instead of the energetic, healthy girl we have a tired and bedraggled young-old woman. Why do women allow marriage, the holy thing, to work this wicked transformation?

MARGARET SANGER, the acknowledged world leader of the Birth Control movement and President of the American Birth Control League, has the answer for this most momentous problem of womankind. Every married woman knows only too well the tragedies resulting from ignorance of birth control.

Why should a woman sacrifice her love-life—a possession she otherwise uses every resource to keep? Why does she give birth to a rapid succession of children, if she has neither the means to provide for them nor the physical strength properly to care for them?

Partial List of Contents

*Woman's Error and Her Debt.
Two Classes of Women.
Cries of Despair.
*When Should a Woman Avoid Having Children?
Birth Control—A Parent's Problem or Woman's.
*Continence—Is It Practicable or Desirable?
*Are Preventive Means Certain?
*Contraceptives or Abortion?
Women and the New Morality.
Legislating Woman's Morals.
Why Not Birth Control Clinics in America?
Progress We Have Made.

*Any one of these chapters alone is worth many times the price of the book.

In her daring and startling book Margaret Sanger gives to the women of the world the knowledge she dared to print—the knowledge for which she faced jail and fought through every court to establish as woman's inalienable right to know.

"In Woman and the New Race" she shows how woman can and will rise above the forces that, in too many cases, have ruined her beauty through the ages—that still drag her down today—that wreck her mental and physical strength—that disqualify her for society, for self-improvement—that finally shut her out from the thing she cherishes most: her husband's love.

In blazing this revolutionary trail to the new freedom of women, this daring and heroic author points out that women who cannot afford to have more than one or two children, should not do so. It is a crime to herself, a crime to her children, a crime to society. And now for the first time Mrs. Sanger shows the way out. And she brings to the women of the world the greatest message it has been their good fortune to receive.

"Woman and the New Race" is a book that will be read wherever womankind struggles with the ever-present danger of too many children. It is a startling, mighty revelation of new truth, a work that will open the eyes of tired, worn, womankind. It can with truth and honesty be called woman's salvation.

Every woman in the country should have a copy of this remarkable and courageous work. For this reason we have arranged a special edition of "Woman and the New Race" at only $2.00 a copy.

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The book is bound in handsome, durable gray cloth, has artistic black lettering and is printed from large type on good paper. It contains 286 pages of priceless information. To have it come to you, merely fill in and mail the coupon below. It is sent to you in a plain wrapper. When "Woman and the New Race" is delivered to you by the postman, pay him $2.00 plus postage—but send no money with the coupon. There will be an unprecedented demand for this edition, which will soon be exhausted, so you are urged to mail the coupon now—at once.

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The Valley of the Giants—*By Peter B. Kyne*

WHEN Bryce Cardigan, son of a pioneer in the redwoods country, comes home to Sequoia from college, he finds his father, now almost blind, engaged in a struggle against an aggressive newcomer, Colonel Pennington. Bryce, who has started a friendship with the Colonel's niece, Shirley Sumner, vows to rescue his father's business and especially to preserve the Valley of the Giants, a magnificent grove where his mother is buried, and which, because it blocks the Colonel's holdings, is menaced by the new operator.

On his first visit to the Valley of the Giants, he discovers that the noblest tree has been wantonly cut down for the burl, and that in falling, it has destroyed his mother's grave. An envelope with the name of Jules Rondeau proves that Pennington's woods-boss was the vandal. At Shirley's invitation Bryce has dinner with her and the Colonel, and conveys to the latter that he knows who stole the burl. The next morning Bryce goes to the Colonel's logging camp and just as he has whipped Rondeau till he confesses, Pennington appears and sets the woods-crew of twenty on young Cardigan.

A MAN of that indiscriminate mixture of Spaniard and Indian known in California as *cholo* swept the circle of men with an alert and knowing glance. His name was Flavio Artelan, but his straight black hair, dark complexion, beady eyes, and hawk nose gave him such a resemblance to a fowl that he was known among his fellows as the Black Minorca, regardless of the fact that his sobriquet was scarcely fair to a very excellent breed of chicken. "That offer's good enough for me," he remarked in businesslike tones. "Come on—everybody. A month's pay for five minutes' work. I wouldn't tackle the job with six men, but there are twenty of us here."

"Hurry," the Colonel urged them.

Shirley Sumner's flashing glance rested upon the Black Minorca. "Don't you dare!" she cried. "Twenty to one! For shame!"

"For a month's pay," he replied impudently, and grinned evilly. And I'm takin' orders from my boss." He started on a dog-trot for the timber, a dozen men after him.

Shirley turned helplessly on her uncle, seized his arm and shook it frantically. "Call them back! Call them back!" she pleaded.

Her uncle got uncertainly to his feet. "Not on your life!" he growled, and in his cold gray eyes there danced the lights of a thousand devils. "I told you the fellow was a ruffian. Now, perhaps, you'll believe me. We'll hold him until Rondeau revives, and then———"

Shirley guessed the rest, and she realized that it was useless to plead—that she was only wasting time. "Bryce! Bryce!" she called. "Run! They're after you. Twenty of them! Run, run—for my sake!"

His voice answered her from the timber: "Run? From those cattle? Not from man or devil." A silence. Then: "So you've changed your mind, have you? You've spoken to me again!" There was triumph, exultation in his voice. "The timber's too thick, Shirley. I couldn't get away anyhow—so I'm coming back."

She saw him burst through a thicket of alder saplings into the clearing, saw half a dozen of her uncle's men close in around him like wolves around a sick steer; and at the shock of their contact, she moaned and hid her face in her trembling hands.

Half man and half tiger that he was, the Black Minorca, as self-appointed leader, reached Bryce first. The *cholo* was a squat, powerful little man, with more bounce to him than a rubber ball; leading his men by a dozen yards, he hesitated not an instant but dodged under the blow Bryce lashed out at him and came up inside the latter's guard, feeling for Bryce's throat. Instead he met Bryce's knee in his abdomen, and forthwith he folded up like an accordion.

THE next instant Bryce had stooped, caught him by the slack of the trousers and the scruff of the neck and thrown him, as he had thrown Rondeau, into the midst of the men advancing to his aid. Three of them went down backward; and Bryce, charging over them, stretched two more with well-placed blows from left and right, and continued on across the clearing, running at top speed, for he realized that for all the losses already inflicted on his assailants, the odds against him were insurmountable.

Seeing him running away, the Laguna Grande woodsmen took heart and pursued him. Straight for the loading donkey at the log-landing Bryce ran. Beside the donkey stood a neat tier of firewood; in the chopping block, where the fireman had driven it prior to abandoning his post, was a double-bitted axe. Bryce jerked it loose, swung it, whirled on his pursuers, and rushed them. Like turkeys scattering before the raid of a coyote they fled and from a safe distance turned to gaze apprehensively upon this demon they had been ordered to bring in.

Bryce lowered the axe, removed his hat, and mopped his moist brow. From the center of the clearing men were crawling or staggering to safety—with the exception of the Black Minorca, who lay moaning softly. Colonel Pennington, seeing his fondest hopes expire, lost his head completely.

"Get off my property, you savage," he shrilled.

"I'll get off—when I get good and ready, and not a second sooner," Bryce returned soothingly. "In fact, I was trying to get off as rapidly as I could when you sent your men to bring me back, Colonel."

He started toward Pennington, who backed hastily away. Shirley stood her ground, bending upon Bryce, a cold and disapproving glance. "I'll get you yet," the Colonel declared from the shelter of an old stump behind which he had taken refuge.

"Barking dogs never bite, Colonel. And that reminds me: One more cheep out of you, my friend, and I'll go up to my own logging-camp, return here with a crew of bluenoses and wild Irish and run your wops, bohunks and *cholos* out of the county. I don't fancy the class of labor you're importing into this county, anyhow."

The Colonel, evidently deciding that discretion was the better part of valour, promptly subsided.

The demon Cardigan halted beside Shirley and stood gazing down at her. He was smiling at her whimsically. She met his glance for a few seconds; then her lids were lowered and she bit her lip with vexation.

"Shirley," he said.

"You are presumptuous," she quavered.

"You set me an example," he retorted good humoredly. "Did you not call *me* by *my* first name a minute ago?" He glanced toward Colonel Pennington and observed the latter with his neck craned across his protecting stump. He was all ears. Bryce pointed sternly across the clearing, and the Colonel promptly abandoned his refuge and retreated hastily in the direction indicated.

The heir to Cardigan's Redwoods bent over the girl. "You spoke to me—after your promise not to, Shirley," he said gently. "You will always speak to me."

SHE commenced to cry softly. "I loathe you," she sobbed.

"For you I have the utmost respect and admiration," he replied.

"No, you haven't. If you had, you wouldn't hurt my uncle—the only human being in all this world who is dear to me."

"Gosh!" he murmured plaintively. "I'm jealous of that man! However, I'm sorry I hurt him. He is no longer young, while I—well, I forgot the chivalry my daddy taught me. I give you my word I came here to fight fairly———"

"He merely tried to stop you from fighting."

"No, he didn't, Shirley. He interfered and fouled me. Still, if I had known you were a spectator I think I should have controlled myself. I shall never cease to regret that I subjected you to such a distressing spectacle. I do hope, however, that you will believe me when I tell you I am not a bully, although when there is a fight worth while, I never dodge it. And this time I fought for the honor of the House of Cardigan."

"If you want me to believe that, you will beg my uncle's pardon."

"I can't do that. He is my enemy and I shall hate him forever; I shall fight him and his way of doing business until he reforms or I am exhausted."

She looked up at him, showing a face in which resentment, outraged, and wistfulness were mirrored. "You realize, of course, what your insistence on that plan means, Mr. Cardigan?"

"Call me Bryce," he pleaded. "You're going to call me that some day anyhow, so why not start now?"

"You are altogether insufferable, sir. Please go away and never presume to address me again."

He shook his head. "I do not give up that readily, Shirley. I didn't know how dear—what your friendship meant to me, until you sent me away; I didn't think there was any hope until you warned me those dogs were hunting me—and called me Bryce." He held out his hand. "And I'll be a good friend to you, Shirley Sumner, until I have earned the right to be something more. Won't you shake hands with me? Remember, this fight to-day is only the first skirmish in a war to the finish—and I am leading a forlorn hope. If I lose—well, this will be good-bye."

"I have you," she answered drearily. "All our fine friendship—smashed—and you growing stupidly sentimental. I didn't think it of you. Please go away. You are distressing me."

He smiled at her tenderly, forgivingly, wistfully, but she did not see it. "Then it is really good-bye," he murmured with mock dolorousness.

She nodded her bowed head. "Yes," she whispered. "After all, I have some pride, you know."

"As you will it, Shirley." He turned away. "I'll send your axe back with the first trainload of logs from my camp, Colonel," he called to Pennington.

ONCE more he strode away into the timber. Shirley watched him pass out of her life, and gloried in what she conceived to be his agony, for she had both temper and spirit, and Bryce Cardigan calmly, rather stupidly (she thought) had presumed on brief acquaintance. Her uncle was right. He was not of their kind, and it was well she had discovered this. It was true he possessed certain manly virtues, but his crudities by far outweighed these.

The Colonel's voice broke in upon her bitter reflections. "That fellow Cardigan is a hard nut to crack—I'll say that for him." He had crossed the clearing and was addressing her with his customary air of expansiveness. "I think, my dear, you had better go back into the caboose, away from the prying eyes of these rough fellows. I'm sorry you came, Shirley. If I had thought—but how could I know that scoundrel was coming here to raise a disturbance? And only last night he was at our house for dinner!"

"That's just what makes it so terrible, Uncle Seth," she quavered.

"It *is* hard to believe that a man of young Cardigan's evident intelligence and advantages could be such a boor, Shirley. However, I, for one, am not surprised. You will recall that I warned you he might be his father's son."

"I wonder what could have occurred to make such a madman of him?" the girl queried wonderingly. "He acted more like a demon than a human being."

"Just like his old father," the Colonel purred benevolently. "When he can't get what he wants, he sulks. I'll tell you you what got on his confounded nerves. I've been freighting logs for the senior Cardigan over my railroad; the contract for hauling them was a heritage from old Bill Henderson, from whom I bought the mill and timber-lands; and of course as his assignee it was incumbent upon me to fulfill Henderson's contract with Cardigan, even though the freight-rate was ruinous.

"Well, this morning young Cardigan came to my office, reminded me that the contract would expire next year and asked me to renew it at the same rate. I offered to renew at a higher freight-rate, and explained that I could not continue to haul his logs at a loss. Well, right away he flew into a rage and called me a robber; whereupon I informed him that since he thought me a robber, perhaps we had better not attempt to have any business dealings with each other—that I really didn't want his contract at any price, having scarcely sufficient rolling-stock to handle my own logs. That made him calm down, but in a little while he lost his head again and grew snarly and abusive—to such an extent, indeed, that finally I was forced to ask him to leave my office."

"Nevertheless, Uncle Seth, I cannot understand why he should make such a furious attack upon your employee."

THE Colonel laughed with a fair imitation of sincerity and tolerant amusement. My dear, that is no mystery to me. There are men who, finding it impossible to make a physical attack upon their enemy, find satisfaction in poisoning his favorite dog, burning his house, or beating up one of his faithful employees. Cardigan picked on Rondeau for the reason that a few days ago he tried to hire Rondeau away from me—offered him twenty five dollars a month more than I was paying him, by George! Of course, I promptly met Cardigan's bid and retained Rondeau; consequently Cardigan took the earliest opportunity to vent his spite on us."

The Colonel sighed and brushed the dirt and leaves from his tweeds. "Thunder," he continued philosophically, "it's all in the game, so why worry over it?"

A groan from the black Minorca challenged her attention. "I think that man is badly hurt, Uncle," she suggested.

"Serves him right," he returned coldly. "He tackled that cyclone full twenty feet in advance of the others; if they'd all closed in together, they would have pulled him down. I'll have that *cholo* and Rondeau sent down with the next trainload of logs to the company hospital. They're a poor lot and deserve manhandling———"

They paused, facing toward the timber, from which came a voice, powerful, sweetly resonant, raised in song. Shirley knew that half-trained baritone, for she had heard it the night before when Bryce Cardigan had sung for her a number of expurgated lumberjack ballads, the lunatic humor of which had delighted her exceedingly. She marvelled now at his choice, for the melody was hauntingly plaintive—the words Eugene Field's poem of childhood, "Little Boy Blue."

The little toy dog is covered with dust,
But sturdy and stanch he stands;
And the little toy soldier is red with rust,
And his musket molds in his hands.
Time was when the little toy dog was new,
And the soldier was passing fair;
And that was the time when our little Boy Blue,
Kissed them and put them there.

"Light-hearted, isn't he?" the Colonel commented. "And his voice isn't half bad. Singing to be defiant, I suppose."

Shirley did not answer. But a few minutes previously she had seen the singer a raging fury, brandishing an axe and driving men before him. She could not understand. And presently the song grew faint among the timber and died away entirely.

Her uncle took her gently by the arm and steered her toward the caboose. "Well, what do you think of your company now?" he demanded gayly.

"I think," she answered soberly, "that you have gained an enemy and that it behooves you not to underestimate him."

CHAPTER XVII

THROUGH the green timber Bryce Cardigan strode, and there was a lilt in his heart now. Already he had forgotten the desperate situation from which he had just escaped; he thought only of Shirley Sumner's face, tear-stained with terror; and because in his ears there still sounded her frantic warning, he realized that however stern her decree of banishment had

(*Continued on page* 35)

been, she was nevertheless not indifferent to him. And it was this knowledge that when his song was done, brought to his firm mouth his old whimsical smile, to his brown eyes a light of confidence and pride.

The climax had been reached—and passed; and the result had been far from the disaster he feared ever since the knowledge had come to him that he was doomed to battle with Colonel Pennington, and that one of the earliest fruits of hostilities would doubtless be the loss of Shirley Sumner's friendship. Well, he had lost her friendship, but a still small voice whispered to him that the loss was not irreparable—whereat he swung his axe as a bandmaster swings his baton; he was glad that he had started the war and was now free to fight it out unhampered.

UP hill and down dale he went. Because of the tremendous trees he could not see the sun; yet with the instinct of the woodsman, an instinct as infallible as that of a homing pigeon, he was not puzzled as to direction. Within two hours his long, tirelss stride brought him out into a clearing in the valley where his own logging-camp stood. He went directly to the log-landing, where in a listless and half-hearted manner the loading crew were piling logs on Pennington's logging-trucks.

Bryce looked at his watch. It was two o'clock; at two-fifteen Pennington's locomotive would appear, to back in and couple to the long line of trucks. And the train was only half loaded.

"Where's McTavish?" Bryce demanded of the donkey-driver.

The man mouthed his quid, spat copiously, and pointed. "Up at his shanty," he made answer, and grinned at Bryce knowingly.

Up through the camp's single short street, flanked with the woodsmen's shanties, Bryce went. Dogs barked at him, for he was a stranger in his own camp; children, playing in the dust, gazed upon him owlishly. At the most pretentious shanty on the street Bryce turned in. He knew it to be the woods-boss's home, for the house was painted with coarse red paint, while a fence of pointed pickets painted white inclosed a tiny garden in front. As Bryce came through the gate, a young girl rose from where she knelt in a bed of freshly transplanted pansies.

BRYCE lifted his hat. "Is Mr. McTavish at home?" he asked.

She nodded. "He cannot see anybody," she hastened to add. "He's sick."

"I think he'll see me. And I wonder if you're Moira McTavish."

"Yes, I'm Moira."

"I'm Bryce Cardigan."

A look of fright crept into the girl's eyes. "Are you—Bryce Cardigan?" she faltered, and looked at him more closely. "Yes, you're Mr. Bryce. You've changed—but then its been six years since we saw you last Mr. Bryce."

He came toward her with outstretched hand. "And you were a little girl when I saw you last. Now—you're a woman." She grasped his hand with the frank heartiness of a man. "I'm mighty glad to meet you again, Moira. I just guessed who you were, for of course I should never have recognized you. When I saw you last, you wore your hair in a braid down your back."

"I'm twenty years old," she informed him.

"STAND right where you are until I have looked at you," he commanded, and backed off a few feet, the better to contemplate her.

He saw a girl slightly above medium height, simply gowned in a gingham dress. Her head was well formed; her hair, jet black and of unusual lustre and abundance, was parted in the middle and held in an old-fashioned coil. Moira was a decided brunette, with that wonderful quality of skin to be seen only among brunettes who have roses in their cheeks; her brow was broad; in her eyes, large, and lustrous, there was a brooding tenderness not untouched with sorrow. Her lips were slightly parted in the adorable Cupid's bow which is the inevitable heritage of a short upper lip; her teeth were white as Parian marble.

(*Continued next week*)

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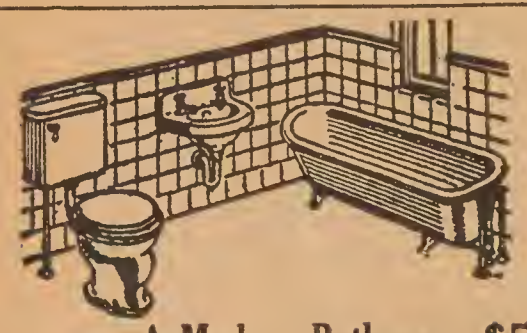

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The A B C of Washing

Elizabeth Johnston Tells How to Simplify This Often Unwelcome "Chore"

IT would be foolish for me to pretend that the family washing is not hard work, because you know as well as I that it is. There are, however, a few tricks that will help a little, and though you may know some, you may not have heard of all of them.

For convenience we will divide the work into three heads, family wash, woolens and silks. First let's talk about the family wash. Lots of people who have no washing machines just gather the clothes up and begin to rub them, but if you have never tried it you will be surprised at the effect of a little soaking. Of course, it isn't safe to try that with colored clothes, and you would want to divide the white clothes into two groups—the "body-clothes," and the others.

Put the clothes to soak the day before you wash, rubbing the soap directly on the specially soiled places, such as wrist-bands, neck-bands and skirt-hems. Use warm water if possible. You cannot safely soak your clothes in tubs with iron fittings or in galvanized iron tubs that have a break in the galvanizing, because, if you do, you will make yourself more work taking out rust-stains. Dripping faucets are also dangerous if you have the usual iron pipes, because the drip will make a rust stain on the clothes which are directly under the faucet. But if the drip is very slow you can use the tub for soaking if you tie several thicknesses of rag over the mouth of the faucet after letting in the water. These rags then catch the rust-stains.

If you have a washing machine, put the clothes in and wash them according to the instructions with that particular make. If you haven't a machine boil your clothes next, using the appropriate one of these two formulas:

1. For Soft Water—½ cake of Fels Naphtha Soap, 2 teaspoonfuls borax, piece of paraffin the size of a pea.

2. For Hard Water—½ cake of Fels Naphtha Soap, 2 teaspoonfuls washing soda, piece of paraffin the size of a pea. (Wyandotte Sanitary Cleaner and Cleanser or Dominion Cleaner and Cleanser may be used instead of washing soda.)

Any good grade of laundry soap will do as well as Fels Naphtha, but you can judge about how much to use from the size of the Fels cake. Dissolve these materials in a saucepan full of boiling water. It will save time to cut the soap into small pieces first. When the mixture is dissolved, pour into the boiler of hot water and then put your clothes in and boil for fifteen or twenty minutes. Put the clothes into cool water and examine carefully for any spots. An unvarnished wooden pole will be convenient for handling the hot clothes. There will probably be a few dirty spots, and these will have to be rubbed by hand, but I think you will find that the soaking and boiling have so softened the dirt that it will not take long to remove the spots. Rinsing, blueing and starching remain, but I am not going to suggest anything about those, because I am sure you have already been warned that blueing should be mixed thoroughly with the water by squeezing it through a cloth, and that starch will dissolve only in hot water.

There are only two more suggestions that I have to make about the family wash, and one of those is that you soak the stockings in soapy water for an hour or two before washing time. Black, dark brown and dark blue stockings can be put in the same water. You will probably find it convenient to let them soak in a pail while you are doing the rest of the wash. As with the other clothes, this softens the dirt and saves some of the rubbing. The other suggestion is that you use a brush on the men's soft collars. You know how hard it is to remove the line of dirt that comes at the fold, but I think you will find a clean brush quite a help.

Care in Washing Woolens

In washing woolens, including blankets, the whole secret lies in using a very pure soap and tepid water. You can use either a cake or soap flakes (soap chips), but purity is absolutely necessary. Never under any conditions use a soap powder or washing powder on woolens because these powders contain a large percentage of washing soda, which is very injurious to any woolen material. Ivory Soap, Wool Soap, Fairy Soap, are all good; among the soap flakes, Lux, Ivory Soap Flakes and Fab are three of a number of good brands.

Make a heavy lather with the flakes. The amount to use depends upon the size of your tubs and the hardness of the water. Hard water requires more soap than soft. The soap will dissolve and lather more quickly if you add the hot water first and beat it up with an old eggbeater or fork, adding the cold water afterwards. But if you do this, be sure to add enough cold water to make the tub-full tepid; it is better to have the water slightly cool than warm. Put the wool things into the water, souse them up and down, and squeeze them between your hands in order to force the soapy water through them. After a few minutes of this treatment rub any specially soiled spots gently by hand until clean and then repeat the first treatment for several minutes more, or until clean. Put the woolens through a wringer or squeeze the soapy water out by hand, but do not wring by hand because the twisting of the fibers is not good for wool or silk. Put the woolens into tepid rinse water and rinse thoroughly. This usually requires two rinse waters, but I think you will find it pays to use more if necessary in order to be sure that all the soap is removed. If soap is left in, your woolens will be more apt to pick up the dirt and in the long run will not wear as well.

When You Wash Silk

Of course, you know that some silks cannot be laundered at all, but washsilks are as easily laundered as the woolens and in the same way. But there are a few precautions which may be taken to prevent the white silks from turning yellow—or, rather, to delay the yellowing as long as possible. If you will wrap a cake of blueing in a piece of cloth and squeeze a little of it into each water into which you put the silks, including the rinsing water, you will find that your silks will stay white longer. You all know that sunlight will bleach cotton goods, but unfortunately that same sun will turn silks yellow, and so wet silks should never be put in the sunlight. I have found it best, whenever possible, to iron the silks, soon after washing, without waiting for them to dry and then sprinkling them. If you have a wringer you should be able to get them dry enough to iron immediately. You can get the same effect by squeezing the silks as dry as possible by hand and then placing them in a clean, dry bath towel and squeezing them again. You all know that a dirty or burned cover on the ironing board is apt to soil the clothes you iron on it, but this is particularly true of silks. A moderately hot iron is best.

The Convenient Kitchen—Does Yours Approach This Model?

This model kitchen, exhibited by the Home Economics Department of the New York State College of Agriculture, shows washing machine, dish washer, and refrigerator, operated by electricity generated by an overshoot water wheel. The kitchen is arranged in correct order to save steps

LAUNDRY WORK IN WINTER

MRS. GEORGE GRAY

Women who would be horrified at the thought of committing suicide, weekly take their lives in their hands while doing the family washing. Many times I have seen women hanging up clothes on a winter's day with arms bare to the elbow and a little cap the only covering for the head, while the hour previous had been spent over steaming tubs.

A few minutes spent in "cooling off" will be profitable. There are always little things that may be done at this time. When you go out, be prepared for the exposure; wear overshoes, a coat, hood and loose white gloves. I always keep a pair of heavy canvas gloves in my clothespin bag, and they are not used for any other purpose. If the clothespins are placed in the oven or warming closet they will do much to make the task more pleasant, and the lines should be in place.

There is nothing to be gained by hanging colored clothes outdoors. In the house they will dry more rapidly and be ready to iron before the white clothes are dry. There is usually an unused room where they may be hung.

Many people make a practice of hanging white clothes inside to dry, but I find they soon become yellow and cloudy. If the day is unfavorable I leave them in the basket, ready to hang up, or in a tub of water. No harm results from either course in cold weather. Clothes should not be out in a strong wind, particularly if the temperature is freezing. The whipping damages them more than the wear. But when the day is quiet, it is a joy to see them hanging over the snow, whitening from the effects of the ammonia in it and the sun above. Delicate articles may be put in a cheesecloth bag and hung in the open.

The days being so short, I find it is a great saving of time to soak the clothes over night, using warm water and a good soap. Often many pieces will be ready for the rinse water in the morning. Having the starch made is another help.

Freezing fades delicate colors and cracks linens, so this sort of garment should not be exposed.

"FIRST AID" FROM AN EXPERT

MISS JOHNSTON, who is an expert chemist, has personally tested and analysed practically all the washing compounds on the market. Her experience is both practical and scientific—in fact, a great New York concern annually buys thousands of dollars worth of such supplies on her recommendations.

Her advice to the housewife is therefore unusually valuable and "The A B C of Washing" has been prepared especially for American Agriculturist readers.

Hot Breads Always Popular

Recipes Which Are Variations of Old Favorites

WE like to pretend that pancakes are a small boy's special favorite, but, as a matter of fact, every member of the family has a sneaking fondness for this typically American dish. Some prefer them with melted butter, others use only maple syrup, which seems, after all, the most suitable combination. But some vote that a mixture, composed of butter, white or brown sugar and cinnamon, brings out the flavor most delightfully.

Whatever one's preference in the matter of sweetening, hot griddle cakes are welcome on every table. Two variations of the usual recipe have been furnished by American Agriculturist readers, and should be given a tryout on every subscriber's table this winter.

Oatflake Pan Cakes

This recipe is vouched for as "splendid" by Mrs. E. B. Austin, of Machias, N. Y. Her directions read:

Soak 2 cups of oatflake in 2½ to 3 cups sour milk over night. In the morning add 1½ cups flour, one teaspoon baking powder, 1 teaspoon salt, 2 teaspoons sugar sifted together. Then add one or two slightly beaten eggs. Pancakes are very good if eggs are omitted. Just before baking the cakes add 1 teaspoon soda dissolved in 2 tablespoons hot water.

Mrs. C. E. Aldrich, of Canandaigua, N. Y., says she can highly recommend a recipe in which graham flour is used:

Graham Griddle Cakes

One pint of graham flour, 1 pint of wheat flour, 1 tablespoon syrup, 1 egg, salt, 2 teaspoons baking powder, 1 pint sweet milk.

Put the milk in a baking dish, beat the egg, add pinch of salt, then syrup, then the sifted flour. Beat all briskly, bake on a good hot griddle.

Different ways of making bread or muffins are also welcome as a variation on the usual loaf. Nut bread, because of its nourishing value, as well as its delicious taste, is rapidly becoming a popular addition to the everyday dinner. Miss Z. E. Berdan, of Paterson, N. J., supplies a recipe which should be easy to use:

Nut Bread

Three-quarters cup sugar, 1 egg, 1 cup milk, 4 teaspoons baking powder, 1 teaspoon salt, 1 cup chopped nuts, 4 cups flour.

Mix all dry ingredients, then add milk, eggs and nuts. Put in pan and let rise for ½ hour before baking, or put in gem pans and let rise 5 minutes and bake from 15 to 20 minutes.

Corn Muffins

As a reliable standby, corn muffins cannot be excelled. Mrs. Ida A. Brown, of Elmira, N. Y., furnishes a "tried and true" list of the proper ingredients to use.

One and one-half cups of flour, two teasopoonfuls baking powder, ¾ cup corn meal, ½ teaspoon salt, 3 tablespoonfuls sugar, 1 cup milk, 1 well-beaten egg, 3 tablespoonfuls warm shortening.

Sift flour and baking powder, then add the dry ingredients, and pour in the wet ingredients. Stir all briskly until smooth. Bake in well-heated oven ¾ of an hour. When done it cleaves slightly at sides of tin and will hiss on bottom of tin if tried with a wet finger as you remove from oven.

FOR THE HEAVY FIGURE

The time has gone by when the stout woman tried to disguise her waist by wearing clothes that fitted as tightly as possible. Someone discovered a few years ago that this only accentuated the extra pounds of flesh, and the up-to-date stout woman now dresses in loose, simple garments, without marked waistlines and with long panels, which give a much more becoming effect.

1511

No. 1511 is an example of the best type of gown for the stout figure. It is a pattern that may be used for almost any sort of material, and can be made in a tailored style with the close-fitting sleeves, or they may be flare. The flare sleeve is most becoming to the woman with large hips.

No. 1511 cuts in sizes 34, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. Size 36 requires 3¼ yards 40-inch material with 1⅜ yards 21-inch contrasting; 2¾ yards binding and 4 yards ribbon for sash. Price 12 cents, stamps or coin.

To Order: Write name and address clearly, enclose 12 cents for each pattern ordered, and mail order to Fashion Editor, American Agriculturist, 461 4th Ave., N. Y. C. Our Winter Book of Fashions is still available. It contains over 300 styles for all members of the family. It is 10 cents a copy.

TO MEND PORCELAIN

"In your paper of Oct. 14th you mention an inquiry as to how a cracked earthen jar could be mended. I have a porcelain pitcher which belonged to my grandmother. Two years ago the handle was broken off close to the pitcher. I remembered reading in some magazine to tie broken pieces together and boil several hours in skim milk, and then, after cleaning, to set it away for several months. Usually a broken dish is a loss, but as I treasured this one I followed directions and as a result have been using my precious pitcher for a year and a half. The article did did not say how much fun you would have cleaning the kettle the milk and dish are boiled in for that length of time, so I won't."

MY DREAM SHIPS

CLARA E. PUTNAM

I sent my ship a-sailing away across the sea,
Into the Happy Country to find a dream for me.
The sunbeams pierced the water and frolicked with the foam,
I sent my ship a-sailing, but I—I stayed at home
And fashioned baby dresses with dainty ruffled skirts,
The softest fluffy blankets; wee, cunning little shirts;
I asked the nesting robin, I prayed the cooing dove
To bring their mother secrets, the wisdom of their love.

* * *

And when the purple twilight had touched the sunset rim,
With all its precious cargo my ship came sailing in.
Oh, take your silks and spices, your diamonds and your pearls,
I'd rather have the sunlight that kissed my baby's curls.
Some day my ship goes sailing again across the sea
Into the Happy Country to find a dream for me;
Its prow will cut the water and toss the shining foam;
I'll breathe a prayer for safety until my ship comes home.

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Reviewing the Latest Eastern Markets and Prices

BULK OF APPLE RECEIPTS ARE GREENINGS

THE bulk of the supply of barreled apples in the market last week were Greenings. There was considerable accumulation of barreled stock from N. Y. State in the market.

The total carlot shipments of apples from all producing points within the United States this season up to January 1, 1923, was 79,073 carloads compared with 73,407 cars to the same date last year.

Market reports on apples use the term "best" as meaning the best of the general receipts. The term "fancy" is applied only to those very exceptional packs where the goods are of very superior quality, carefully graded and free from all blemishes. Such goods are superior to the minimum requirements of the New York law for Grade A. "Ordinary" is the common stock barely meeting minimum Grade A requirements not uniform good size, nor up to market standard as to color or freedom from blemishes.

These terms will be used in regular quotations on this page during the rest of the apple-shipping season, as in the following table of wholesale prices at New York January 4:

APPLES	Best	Fancy	Ordinary
Baldwin	$4.75@5	$5.25@5.50	$4 @4.50
Greening	4 @4.25	4.50@4.75	3.50@3.75
McIntosh	7.50@8	8.50@9	6 @7
N. Spy	6.50@7	7.25@7.50	5 @6
Ben Davis	3 @3.25	3.50	2.50@2.75

The market for pears most of which are now Kiefers continued very dull. Best Kiefers sold at $3.00 to $3.50 with a few sales of fancy large at $3.75 to $4.

Potato Market Dull After Holidays

Except for a little better demand just before New Year's the potato market at New York has been generally dull with plenty of potatoes moving from the country on the slightest prospect of higher prices. Most New York State growers have been getting 45 cents a bushel, with a few very fancy bringing 50 cents.

At the 33rd St. N. Y. City yard 150-pound sacks on January 4 were selling, not freely, for $2 each. Bulk State round whites No. 1 per 180-pounds mostly $2.50 for best. Long Island Green Mountains, per 180-pounds bulk, mostly $3.50 to $3.65.

The total carlot shipments of potatoes in the country this season up to January 1, was 154,800, only a little in excess of the 152,245 cars shipped last year up to the same date, in spite of the larger crop.

Demand for Cabbage Improving

There were very few cars of cabbage in the yard on January 4, and the demand was improving. The best Danish brought $25 per ton in Harlem. Some up-state shippers are holding for $20 per ton f. o. b. which is too high to stimulate much movement. Carlot shipments of cabbage in U. S. up to January 1, were 34,391 compared with 26,994 to same date last year.

Onions continued to find a steady market, with prices for No. 1 yellow lower than in 1921, the decline was not as great as with most other farm products. The following average wholesale prices received for butter in New York City for the last five years were compiled by the principal trade market reporting agency: 1922, 40.58 cents; 1921, 43.25; 1920, 60.144; 1919, 60.72; 1918, 52.30.

Included in the year's receipts of butter at New York were at least 20,000 packages from Canada, and 27,260 casks of 112 pounds each from Denmark. The high tariff of 8 cents per pound caused imports to fall off considerably in 1922, and the total importations were about 4,000,000 pounds.

The cold storage holdings of butter in the four large markets on January 3 were 14,835,806 pounds, compared with 32,974,153 pounds on the same date last year. Receipts of butter at New York up to January 3 this year were 19,025 tubs, compared with 9,164 tubs last year.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers hold on January 4:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
Hennery, whites, extra fancy	55@57	......	......
Extra first	53@54	......	......
Firsts	51@52	51@53	......
Gathered, whites, first to extra firsts	51@54	......	......
Lower grades	45@50	......	......
Hennery browns, extra fancy	53@55	......	......
Gathered browns and mixed colors, extra fancy	45@52	......	......
Extra first	......	49@56	49@50
Pullets	42@51	46@48	......
Butter (cents per pound)			
Creamery (salted) high score	52½@53	......	......
Extra (92 score)	51½@52	54@55	53½
State dairy (salted), fine to fancy	42 @50	52@53	......
Good to prime	35 @41	45@51	......
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$24@25	......	$20@21
Timothy No. 3	21@23	$19@20	17@19
Shipping hay	......	......	......
Fancy light clover mixed	24@25	......	19@20
Oat straw No. 1	16@17	......	12.50@13
Rye straw No. 1	24@25	......	......
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	23@27	25@26	26@28
Fowls, leghorns, fancy, heavy	20@21	17@21	19@22
Chickens, colored, fancy, heavy	......	......	......
Roosters	13	17@18	16@17
Live Stock (cents per pound)			
Calves, good to medium	15 @16	12 @15½	......
Bulls, common to good	2.6@3.9	4½@5½	......
Lambs, common to good	9 @11	11½@15½	......
Sheep, common to good ewes	3½@5½	7 @8	......
Hogs, Yorkers	9¼@9½	8½@9¼	......

slightly higher than a week ago, best, $2.65 to $2.75 per 100-pound bag. Receipts comparatively light. Carlot shipments to January 1 for whole country were considerably greater than last year, 23,090 cars this year, compared with 17,339 last.

Sweet potatoes advanced last week for a few days, then dropped again with much larger receipts. New Jersey basket sweets principal supply now. Quality of many shipments is poor. Prices ranged from 90 cents to $1.65 during week, but on January 4 most sales were $1.15 to $1.25 per bushel.

Celery offerings from up-State sections were of inferior quality and condition, with demand light and market generally dull. U. S. Bureau of Agricultural Economics reports that 48,596 crates of celery were still in storage December 22 in Wayne County. Two-thirds crates, best, sold at New York, January 4, at $3.25, with few sales higher.

Butter Lowers on Heavy Receipts

Butter dropped several cents a pound in the last week. Receipts are running several thousand packages per day higher than the week prvious, with considerable quantities arriving from foreign countries. Creamery, salted, extra 92 score, was quoted at 51½ @ 52c per pound, January 4, as compared with 54 cents a week before. On same date last year the price was 39 to 40 cents. State dairy declined from 3 to 6 cents on top prices for given grade, and showed much wider range in quality and price. Danish creamery sold at 52 to 52½ cents per pound.

Receipts of butter at New York in 1922 broke all previous records. There was an increase over 1921 of 444,704 packages, equivalent to about 26,682,240 pounds. The total receipts for 1922 were 3,317,278 packages. Although prices during the year were somewhat

New York State cheese, whole milk, average run colored and uncolored flats, sold the first four days in January at 27½ to 28 cents per pound, slightly above the average price of December, on which the Dairymen's League based its price for milk going into cheese manufacture. The market was steady in spite of very heavy receipts of 320,006 pounds on January 2, compared with 102,539 pounds on same day last year.

Eggs Hold Fairly Firm

Nearby eggs declined another 5 cents per dozen last week, except fancy nearby browns, which continued at about the same price. Receipts were about 4,000 cases in excess of the previous week from Saturday to Tuesday, January 2. Shipments of Pacific Coast whites were fairly liberal. The fanciest nearby extras were in fair demand, and the finest New Jersey lots sold for various prices up to 60 cents per dozen on January 3. Pacific Coast whites extras quoted at 55½ @ 56c; fancy New Jersey hennery browns, 56 @ 57c.

Receipts of Poultry Exceed Demand

Receipts of fresh-killed poultry contained liberal and in excess of demand. Nearby chickens are very irregular in quality and many shipments average considerably under the quotations. The prices on nearby best poultry, January 4, follow: Per pound, by the barrel, dry-picked fowls, five pounds and over, 29 @ 30c; four pounds, 28c; three pounds and under, 20 @ 26c; scalded, five pounds and over, 23 @24c; roasting chickens, dry picked, four to six pounds and over, 34 @ 36c; 3½ pounds and under, 24 @ 30c.

More live poultry was sold in New York City in 1922 than ever before. The total business for the year was more than 12,000 carloads, with an average value of $4,250 per car, making a total value of $51,000,000. Estimating an average weight of 3½ pounds to each bird, the total number of birds exceeded 62,000,000. All this poultry was Kosher dressed in the poultry slaughter houses and consumed chiefly by Jewish people. Their per capita consumption of poultry was close to 90 pounds per person.

All during the year the supply was in excess of normal demand. Wholesale dealers and shippers both claim they have made no money on poultry business here last year. Competition resulting from the effort to move oversupply cut the margins down so that profits were small.

Country Dressed Calves Meet Good Market

Country dressed calves have found a much better market outlet since the holidays, and have been fairly plentiful. Small veals and lower grade calves, however, brought irregular prices, and did not move as regularly as better qualities. Dressed lambs were steady for fancy hot house, but poor grades sold slowly at irregular prices. The following quotations are for January 4: Calves, prime, 16 @ 17c; fair to good, 11 @ 15c. Lambs, dressed hothouse, per carcass, 9 @ 12c. Pigs, 8 to 12 pounds, per pound, 30 @ 40c; 14 to 20 pounds each, per pound, 20 @ 30c.

Hay Market Continues Dull

Market continues weak and trade dull. The following quotations are based upon the new U. S. Hay Grades, which are now in effect in the New York markets. Copies of the grade specifications can be obtained from the U. S. Bureau of Agrcultural Economics, Washington, D. C. Official inspections to determine quality and condition will in the near future be based upon these grades, and can be obtained on application to Richard J. O'Brien, New York Hay Exchange, 601 West 33rd Street.

	No. 1	No. 2	No. 3
U. S. Timothy (not more than 5% clover)	$26	$24@25	$21@23
U. S. Light Clover mixed (not more than 15% clover)	24@25	23@24	21@22
U. S. Medium Clover mixed (not more than 35% clover)	24@25	23@24	22@23
U. S. Heavy Clover mixed (not more than 65% clover)	21@23	18@20	
Light Grass mixed (not more than 15% grass)	23@25		
Medium Grass (not more than 35% grass)	19@22		
Heavy Grass mixed (not more than 60% grass)	19@22		
Heavy Clover mixed (not more than 90% grass)	17@21		

Feed and Grain Quotations

Buffalo Market—Wholesale prices in carlots f. o. b. Buffalo, 100-pound sacks, were practically the same on January 3 as quoted in last week's issue, except for choice flour middlings, which were 50 cents ton lower. Straight grains were all lower, and quoted: New No. 2 yellow corn, 82c bushel; No. 3 yellow corn, 81c; No. 2 white oats, 51½c; No. 3 white oats, 49½c.

The following were the cash grain quotations per bushel at New York: No. 2 red wheat, $1.35; No. 2 hard winter, $1.35; No. 2 yellow corn, 90½c; No. 2 mixed, 90c; No. 2 white oats, 54½ @ 54¾c; No. 3, 53½c; rye for export, $1.02¼; barley for malting, 81 @ 83c. At Chicago: No. 2 hard winter, $1.17½ @ 1.19½; No. 2 white corn, 71 @ 71¾c; No. 2 yellow corn, 70¼ @ 72c; No. 2 white oats, 43 @ 43½c; barley, 60 @ 71c; rye, 87¾ @ 88c.

Horse Market Starts Year Active

January opened with an active market, prices $25 to $50 higher on good, serviceable animals than at the close of last year. At New York, fresh western horses, sound and fully serviceable, sold the first week in January at $165 to $250 for weights over 1,300 pounds; $140 to $215 for lighter weights. Second-hand, sound farm horses sold around $190 for average weights, particularly good animals going as high as $225. The spring horse market in New York City opens about February 1, and lasts until early May.

16

Old Time Favorite Songs

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Auld Lang Syne
Ben Bolt
Old Black Joe
Love's Old Sweet Song.
Kathleen Mavourneen
Comin' Through the Rye
My Old Kentucky Home
Old Folks at Home
Home, Sweet Home
Sweet and Low
Lullaby (Erminie)
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Annie Laurie
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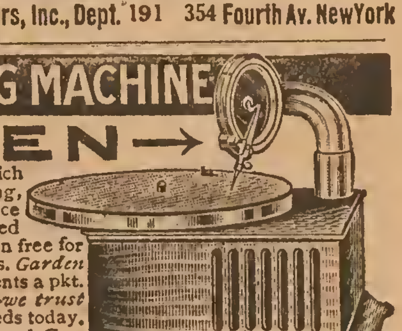
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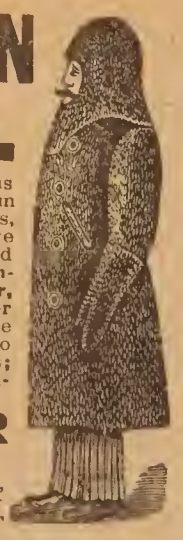

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New York Holstein Breeders' Annual Meeting

THE annual meeting of the New York Holstein-Friesian Association will be held at the Hotel Yates, in Syracuse, January 16. It will be followed by a banquet that evening at the Hotel Onondaga. Speakers include D. D. Aitken, Flint, Mich.; Lieutenant Governor-elect George R. Lunn, Henry Morganthau, Jr., publisher of the American Agriculturist, and J. D. Barnum, pubisher of the Syracuse Post-Standard. Prof. H. H. Wing of Ithaca is chairman of the banquet committee.

Annual Winter Sale Next Week

The annual mid-winter sale of the Association will be held at the State Fair grounds on the two following days, January 17-18. Over 150 head of high-class pure-bred Holsteins will be sold, including several 30-pound cows and fourteen bulls from high-record dams.

TAGGART IN FRONT AGAIN

The winner of the Grand Championship at the International Live Stock Exposition this year was C. L. Taggart of Washington, Pa. This is Mr. Taggart's third grand champion. In 1907 he won with Squire Good, and in 1910 with Crown. The Aberdeen Angus Breeders' Association writes as follows of Mr. Taggart's achievement:

"This practical breeder from the East has always been high up in these competitions in which animals are lined up in the ring and judged alive by one judge, are then slaughtered and their beef passed upon by a second expert as they hang in the coolers of one of the big packing houses. Every year Mr. Taggart's Aberdeen Angus steers are crowding the colleges for honors, getting two firsts, three seconds, three thirds, four fourths and a fifth in classes that often number over 50 in the greatest agricultural colleges in the United States.

Starting with a good Aberdeen Angus cow picked up at the Chicago yards several years ago, Mr. Taggart began using registered purebred Aberdeen Angus bulls. From that start came all these excellent carcasses and have proved above every other feature of the show that purebreds are worth about 40 per cent more than scrubs or grades merely as a commercial proposition at the market.

To Keep the Horses in Condition try feeding carrots a couple of times a week. They act like a tonic. They also keep the coat sleek and glossy.

Choosing the Farm Radio

(*Continued from page* 33)

stage amplifier, a single circuit or two-circuit regenerative receiver should total about $75 if home-made, and about $160 if it is a manufactured instrument.

For those who are not mechanically inclined and who wish to insure results, it is advisable to purchase a manufactured outfit. Where economy is important, and the radio enthusiast is also capable with tools and of an experimental nature, the individual parts for the set may be purchased and assembled at home. This is by far a better method in these days of mail-order houses and quantity production of radio supplies than the third possibility—that of constructing the entire set oneself. Where sufficient money is invested in standard parts, it is always possible to advance from a simple to a more sensitive outfit, but home-made parts are almost always thrown away and replaced later on by superior manufactured products.

Realizing that radio broadcasting is a settled affair, and that it will be a most important factor in farm life, the American Agriculturist will publish within the next few months a series of "how-to-make-it" articles describing the construction of a number of modern radio receiving sets which have proven their worth. These will all be progressive in that the parts employed for a simple receiver may be used later on in a more advanced outfit, when the builder has fitted himself to assemble more sensitive equipment.

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BABY CHICKS

HILLPOT QUALITY CHICKS
It's not only what WE do, that makes them Hillpot Quality Chicks.
It's what THEY do, right in your own poultry yard. The quick way they develop into profitable layers and payers is the natural result of *their* ancestry—plus *our* right hatching.
For the biggest profit results on
LEGHORNS, ROCKS, REDS, WYANDOTTES
—told not by us, but by our customers, be sure to read our
1923 Catalogue Free
Full of valuable facts that point the way to poultry success and poultry profits, that show why "wherever they raise them they're sure to praise them."
Safe delivery of full count guaranteed anywhere within 1200 miles.
W. F. HILLPOT, Box 29, Frenchtown, N. J.
Member International Baby Chick Association
Life Member American Poultry Association

SUNBEAM HATCHERY
The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, growthy Chicks which will mean PROFIT to my customers. PRICES: WHITE, BROWN & BUFF LEGHORNS, 50, $7.; 100, $13.; 500, $62.50. BARRED ROCKS, R. & S. C. REDS & ANCONAS, 50, $8.; 100, $15.; 500, $72.50. WHITE & BUFF ROCKS, WHITE WYANDOTTES, & R. MINORCAS, 50, $8.50; 100, $16.; 500, $77.50. WHITE & BUFF ORPINGTONS SIL. L. WYANDOTTES, 50, $9.; 100, $18.; 500, $87.50. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them.
BANK REFERENCE CATALDGUE FREE
H. B. TIPPIN, Box F, FINDLAY, OHIO Member I. B. C. A.

RURAL CHICKS
from MICHIGAN CERTIFIED S. C. ENGLISH STRAIN, White Leghorns, Brown Leghorns, and Anconas. BUY DIRECT from our large rural poultry institution and save money. LIBERAL DISCOUNT allowed on all orders booked now. ACT QUICKLY! Ask for our free valuable catalogue and attractive prices. Our chicks are shipped postpaid and we guarantee satisfaction and 100% live delivery.
RURAL POULTRY FARM & HATCHERY
Zeeland R No. 1 Dept. A Michigan

CHICKS Husky livable chaps. Egg machinos from high laying, pure farm bred stock. Specialists in S. C. W. Leghorns, R. I. Reds, B. P. Rocks. Sent postpaid. 100% live delivery guaranteed. Eggs and Breeding stock. Illustrated circular "ALL THAT IS NEW IN POULTRY" FREE.
GALEN FARMS, Box 200, Clyde, New York

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.
MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

HIGHEST QUALITY BABY CHICKS
Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
S. C. White, Brown, Buff Leghorns	$15	$72	$140
Barred Rocks, R. I. Reds, Anconas	$18	$85	$160
White Rocks, Blk. Minorcas	$20	$95	$180

All chicks sent by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. 10% books order any week after Feb. 1.
SHERIDAN POULTRY FARMS SHERIDAN, PA.

1923 Chicks Wh., Br., and Buff Leghorns. 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.
Globe Hatchery, Box S7 Berne, Ind.

BABY CHICKS—Quality Hatched
S. C. White Leghorns; R. C. Rhode Island Reds; Barred, White and Buff Plymouth Rocks. 100% live delivery. Free pricelist.
MIDVALE POULTRY FARM Strawberry Ridge, Pa.

TIFFANY'S SUPERIOR CHICKS THAT LIVE
Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

CHICKS $11 AND UP. Hogan tested, heavy laying, Barred and White Rocks, Reds, Anconas, Minorcas. 50, $8.50; 100, $16; 500, $77.50. Buff Orpingtons, White Wyandottes, 50, $9; 100, $17.50; 500, $85. Wh. Br. and Buff Leghorns, 50, $7.50; 100, $14; 500, $67.50. Mixed, $11 per 100 straight. Postpaid, full live delivery guaranteed. Order NOW from this ad. Catalog free. Also eggs for hatching. Bank Reference.
TRI-STATE HATCHERIES Box 510 Archbold, Ohio

BABY CHICKS

BABY CHICKS
From 200-Egg Hens
Chicks from winter laying, farm raised, nature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.
Glen Rock Nursery & Stock Farm
Ridgewood, N. J.

Chicks—Breeders—Eggs
S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.
TRY US AND BE SATISFIED
RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

CHICKS PEDIGREED, EXHIBITION & SELECT GRADES, from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.
NABOB HATCHERIES, Box A5 Gambier, Ohio

BABY CHICKS
Get a bunch of early chicks. Have that idle brooder earning money. The first broilers are the money makers. Prices now: Buff, Barred Rocks, Reds, Anconas, Minorcas, 18c each; White, Brown, Buff Leghorns, 16c each; Broiler chicks, 12c each. Write for prices for future delivery. Safe Delivery Guaranteed by Parcel Post.
NUNDA POULTRY FARM, Nunda, N. Y.

HUMMER'S FAMOUS CHICKS
Pullets, Bar Rock, Brown Leghorn Aneona, White Leghorn, Minorea, Etc. Free Circulars.
E. R. HUMMER & CO. Frenchtown, N. J.

Hampton's Black Leghorn Chicks
Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.
A. E. HAMPTON, Box A Pittstown, N. J.

"THE MACHINE YOU WILL EVENTUALLY CARRY"

The Underwood Standard Portable— a *necessity* on the modern farm

FARMING is now a business; and farmers are business men. Surely their letters ought to be business-like letters—in other words *Typewritten* letters.

The boys and girls on the farm—and the older folks too—will *enjoy* writing on the sturdy, simple Underwood Portable. No lessons are necessary.

Think of the business benefits of *typed* letters. Your meaning cannot be misunderstood, or your orders mis-read. You may keep a carbon copy of your correspondence.

As for the children—an Underwood Portable is of real help in school work. Lessons, when typed, are neater, more legible, and sure to get the favorable attention of the teacher.

UNDERWOOD TYPEWRITER CO., INC. - Underwood Building, N. Y.

Branches in all principal cities

UNDERWOOD PORTABLE

AA

UNDERWOOD TYPEWRITER CO., Inc., Underwood Building, N. Y.

☐ Send Underwood Standard Portable, fully guaranteed, to address below. Enclosed find price, $50.00. [Prepaid to any point in the United States.]

☐ Send booklet "Giving Wings To Words", fully describing the Underwood Standard Portable.

Name_____ Address_____

VOL. 111 Founded 1842 No. 3

AMERICAN AGRICULTURIST

$1.00 A YEAR January 20, 1923 5 CENTS A WEEK

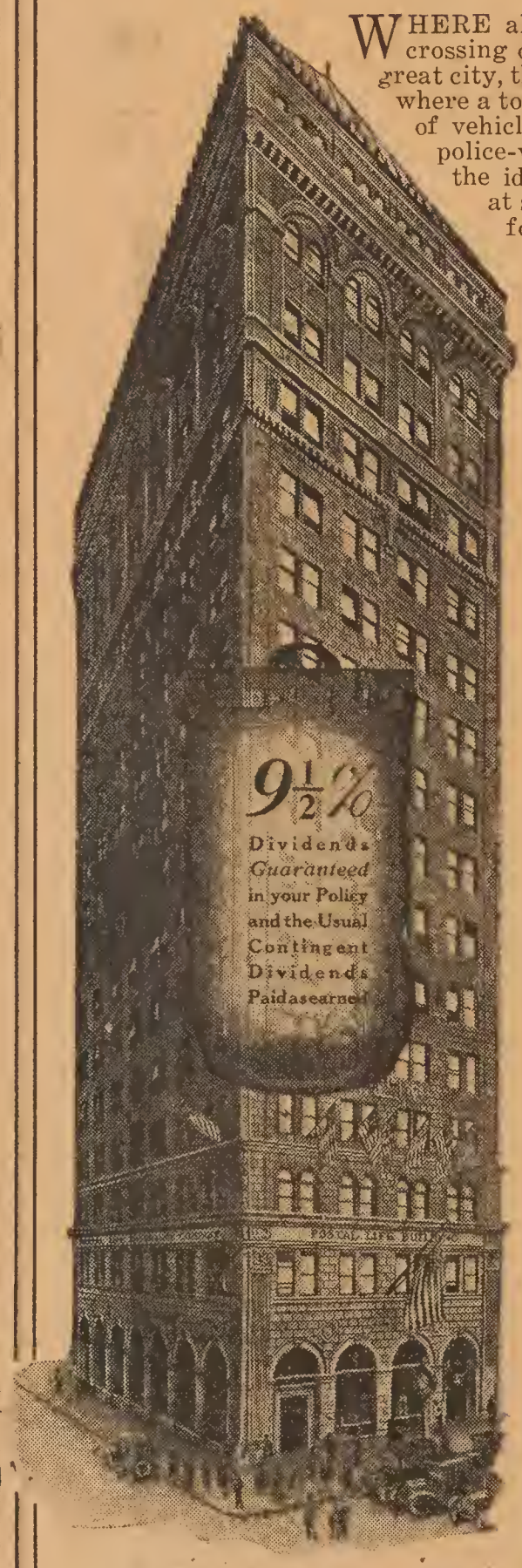
"If He's Five, I'm Fifteen"

Over One Hundred Twenty Tho[illegible]irculation Weekly

At the Crossways of the World

Broadcasting Thrift and Health

By JOHN W. HARRINGTON



POSTAL LIFE BUILDING

Awarded Gold Medal by Committee of Architects approved by the Fifth Avenue Association.

WHERE all the world may meet is the busiest crossing on this continent. It is the heart of a great city, this junction of the streams of traffic, where a tower flashes colored fires and streams of vehicles pause or move at the note of the police-whistle. The patient and impatient, the idle and the busy, all halt at the curb at signal, eager to be on their way again; for if they did not hurry to make room for more there would be no space for anyone to pass at Fifth Avenue and Forty-second Street. It must have been that two men, who stood silent in the crowd, saw a vision, for they did not move nor stir for a moment, although the signal to let go the sluice-gates of travel had been sounded.

A Crowded City's Most Crowded Crossing

"You are right, Kent," said the older of the two. "It is ours. Of course, I know, as well as everybody else does, that all that action, all that advertising, had to come from a definite place, and now I recognize it by the pictures."

Two Bankers View Their Building

"I had almost forgotten that our Insurance Company had moved," rejoined Wilson, of Wyoming. "That was five years ago. What a wonderful site for such a Company! It could not have just happened; it must have been by design. Why, man, here is a regular broadcasting station, sending wave after wave of 'Safety and Service' to all America! A matchless advertisement, itself generating advertising, reaching a whole people."

Reaching the People by Business Radio

"It does that," commented Kent. "In this wireless age, what less could be expected, and what is better than agentless policies available to everyone?"

That was how the memorable visit of Kent of Keokuk, and Wilson of Wyoming, who had gone to New York as delegates to the Bankers' Convention, brought them right to the very doors of the Company into whose keeping they had given the protection of their families—the Postal Life Insurance Company.

"What better location for advertising and selling insurance than right here?" proudly remarked Wilson. "Here is all mankind in endless procession, reminding one that there is no time like the present. With banks and trust companies and two great railroad stations as neighbors, our Company has placed itself at a center where it can easily reach out in every direction with its messages. All roads lead to it, for the mail pouch is a universe in itself."

A Location Which Exemplifies Publicity

They had entered the building. "I think, now that we are here," said Wilson, "it would be a fine thing just to take a look around. We may find some one who can spare us a little time and show us through headquarters. What do you say?"

Whatever Mr. Jason Kent may have had in his mind to say, it vanished; for at that moment an attendant had asked: "Do you wish to see the President?" "If he is not too busy," answered Wilson, "although I am sure he would hardly know us, considering that we came in by the mail route."

A Place Where the Public Feels at Home

"Most of us do," rejoined a smiling person who had stopped for a moment to glean some of the new literature from the ever-ready rack. "There are a good many residents of New York who come to get their policies over the counter; but, all the same, we are all converts of printer's ink—not captives of the zealous agent."

Did you ever see, in one and the same enclosure, the office of the President and the conference room of the Board of Directors? That's an innovation. And it shows just how closely everybody cooperates in the management of the Postal Life Insurance Company. If the walls had tongues with which to speak, they would not have needed them, for everywhere were the eloquent signs of the ideal for which the Postal stands. A portrait of Lincoln and another of Roosevelt revealed the sound Americanism that is the basis of all public service. On the panel near a Fifth Avenue window was an "Address to the Flag," and from another angle could be seen the benign and dignified face of John Marshall, once Chief Justice of the United States, the very epitome of the law that guides every operation of the busy organization conserving the welfare and the future of so many thousands of Americans.

The President, who had just concluded a conference, came forward to greet the visitors.

"You don't see many of us at our face value," laughed Kent, "so we thought, if it did not take too much time, that we would just drop in and view the original home of our policies."

President Greets Policyholders

"It is a great pleasure, indeed," returned the President, "to have the opportunity of seeing our policyholders face to face. And it is surprising, considering the fact that our business is conducted through correspondence and advertising in its various forms, how many of our policyholders do us the honor of visiting us."

"Now that we are here," suggested Wilson, "we might state that it is often wondered at that you are able to reach so many people in the United States without personal solicitors."

The Postal Life Way

"There's no mystery about it," was the reply. "Every man wishes to assure the future of his family. He also dreads to be the quarry of canvassers and agents. If the argument for taking out a policy can be presented to him when he is in the mood to receive it—say through the pages of his favorite magazine or newspaper—and the terms are within his means, there is no real difficulty to overcome. It is a matter of plain, every-day common sense. There is nothing more expensive than forcing the average American to take even what he thinks he ought to have at a time when he does not feel inclined to take it."

"You issue a great deal of direct advertising literature," remarked Wilson.

"We send that when the interest of the inquirer has been aroused. Having once written the Company, he always has some kind of an interest; and we keep on sending suitable literature, if we feel that something has interfered with his giving the matter the needed attention. When his application has been received, the balance of our task is routine. Like you, he has become one of us by that time. The details welcoming him into the Postal family soon follow, as you will soon see by making an inspection of what we call the *Home* Office. In a true sense, it is the home of the policyholders, whether they are present with us, as you are, or are here by proxy in the files."

Policyholders' Home Office

Through well-lighted, thoroughly ventilated rooms, the visitors made their way, as they followed the orderly course toward the division of policy-issues. Correspondence experts with their assistants ranged in long lines were seen answering the inquiries of men and women from all parts of the country asking for particular information after they had read an advertising announcement. Many had sent the amount of their first premiums. The reports of examining physicians were in hand. The applications pass to the Medical Department, where they are carefully scrutinized. Here is a department which irradiates health, for it sends out periodical bulletins of practical advice to policyholders, for their guidance in keeping "fit."

An Institution Which Irradiates Health

And the visitors availed themselves of an annual privilege of every policyholder—that of being "examined" by the Company. They passed the medical muster with colors flying, as they were bound to do; for had they not had the advantage of sound counsel for years, as to the guarding of their health?

One of the features of Postal Life management is the despatch with which an inquiry about a policy is answered. The promptness with which all claims are met is known in every part of the country.

"It only takes a look through your filing and distributing departments," commented Wilson, "to be impressed with the importance with which the facilities for transacting business quickly are regarded. I have never seen such efficient handling of business anywhere." Sometimes with watch in hand he was making himself sure that there was no lost motion in the progress or movement of the work. The experiments were most convincing.

Business Efficiency

The methods by which a well-geared machine functions are interesting to everybody, but especially so when the beholder is personally interested in the net result.

Conservation is the keynote of the administration of the Postal Life. It says it "enforces economies." It is evident that, in every detail of the management, it remembers that the money in its keeping is in trust for the benefit of all who are on the books. As at any time the examiners of the State Insurance Department are likely to make a visit, there is the extra incentive to keep the business of the Company in order, up to date, and showing evidences of Postal economy.

A National Institution

The experience of the two policyholders from the West on that autumn day not long ago confirms the impression so many have gained: that the Postal Life Insurance Company is an institution looming large in the life of the Nation.

Safety, Saving, Service are its Watchwords

To find out what *you* can save call at the Company's Office, send in the Coupon, or simply write and say:

"Mail me Official insurance-information as mentioned in The American Agriculturist for Jan. 20th."

In your letter be sure to give

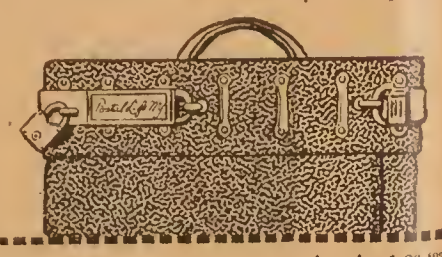
1. Your Full Name. 2. Your Occupation. 3. The Exact Date of your Birth.

No agent will be sent to visit you. The Postal, as stated, has no agents and the resultant commission savings go to *you*, because you deal *direct*. Its insurance in force is $43,000,000; Assets, $10,000,000; Annual Income, $2,000,000.

POSTAL LIFE INSURANCE COMPANY

Wm. R. Malone, President

511 Fifth Avenue (Cor. 43rd St.), New York, N. Y.



Am. Ag. 1-20,'23

Postal Life Insurance Company
511 Fifth Avenue, New York

Without obligating me, please send full insurance-particulars for my age.

Name ----------

Address ----------

---------- ----------

Occupation ----------

Exact date of birth ---------- ----------

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending January 20, 1923** **Number 3**

David Lubin, Prophet of Agriculture

A Picturesque Leader in the Struggle for a Fair Deal for the Farmer

"WILL you make history with me?"

It was a challenge which came without introductory formalities to a young Italian patriot at Pisa, some years ago. The speaker was a middle-aged man, with deep-set, kindly eyes in a worn but finely-modeled face. The young Italian listened, fascinated as the speaker went on, and later wrote of that memorable talk:

"He started from way back, and in a rambling talk, relieved by singular and picturesque expression, traced down the ages, the everlasting struggle between town and country, between the industrial and the rural population, showing how the latter, though more numerous, more virile, and the economic and military backbone of the State, has nevertheless been the 'under dog' in the struggle, politically outwitted and economically exploited more or less everywhere.

"The ideas were not new to me, but he spoke with such warmth of conviction, his eyes shot such fiery glances, that all diffidence which the eccentricity of the person or of the approach might have inspired melted away. Indeed, I felt strongly attracted to this man, obviously moved by a deep sense of injustice to be righted, of good to be accomplished. And he won my assent more and more when, analyzing the phenomena, he assigned the cause of the inferiority to the defective organization of the agricultural classes. He was speaking to a convert."

He Took Up the Farmers' Fight

The man whose devotion to this struggle of the farmer had led him to turn his back on a comfortable middle-age in America and to become practically an exile, in failing health, derided as a crank, but gradually winning European acceptance for his cherished plan of world-wide reform, was David Lubin. The challenge to help make history which so thrilled the eager young Italian, came from the lips of this unusually modest and self-effacing man in the first flush of victory after he had finally obtained an audience with Victor Emanuel, King of Italy. The King, himself fired by the enthusiasm which animated this prophet of a new order, had promised to take the initiative in founding a world Chamber of Agriculture.

The dramatic story of Lubin's long struggle to bring his plan before the ruler of some great power, is told in his recently published biography* written by Olivia Rossetti Agresti, who joined the ranks of his converts as secretary during the Italian campaign and who went with him through the exciting days of alternating success and reverse which made up the rest of his life.

What had proceeded that climax to Lubin's career is told by Signora Agresti with the sympathy that makes her account seem to be from first-hand knowledge. The man who was to be one day regarded as one of the really great Americans—as indeed, a figure of international importance—was born of humble parents in a little town in Russian Poland. Named after the mighty King David, the boy was further believed to be set apart for service because of an incident which happened when he was only four days old. The wick of a Sabbath candle fell on the cheek of the baby, lying by his mother's side, and made a deep burn which left a scar for life. A learned Rabbi, visiting the home, interpreted this as a sign that the boy was set apart for God's service and his mother's firm belief in this omen, according to her son, influenced his whole subsequent life.

As a poor emigrant boy on the East side of New York, young David soon ceased his schooling and at twelve was at work. The cry of "Go West, young man!" came after a while to his ears, and three years in the wilds of Arizona made him strong in body, developed his keen resourcefulness and taught him the lore of the pioneer and the philosophy of the dweller in the desert. It was a many-sided, matured young man who at twenty, drifted to the coast of California and there entered commercial life. Entered it, be it said, with a spirit of fairness and justice which was a new note in the trading and barter of that crude, adventurous country, where men made or lost a fortune over night and where money and lives alike were held cheap. Young Lubin, firm in the teachings of a Godly mother and his own deep-rooted instinct for absolute justice in even the smallest transactions, announced his modest start as proprietor of a struggling little shop by hanging out the first "One Price Only" sign seen in the West. Small as the shop was, and meager the living won from it, Lubin by that step doomed the old sharpster method of haggling over prices. His fame as an honest merchant gradually spread, he carried his principles of equity to customers and employees alike into his larger ventures, and in time he inaugurated the mail-order business as we know it to-day, and was well on his way to becoming an extremely wealthy citizen.

But all this business career took into no account the continual urge towards service, the inner conviction that he was a man set apart to give his life for others. Lubin all his life long was student, a thinker; the rapid growth of the West had caused much injustice and his keen, analytical mind was constantly revolving the problems of his surroundings. After a great deal of such thinking, he felt that he had reached the fundamental fact in deciding that the condition of the farmers determined a country's real prosperity.

Never a man to argue a subject with which he was not thoroughly familiar, he turned his back on commercial success, bought a farm and started out to learn the business, literally "from the ground up." How he fought for equitable railroad rates—even making a flying trip to New York and bearding the most stubborn president in his den—how he organized the fruit growers, educated public opinion, stormed the citadels of Washington and used the county-house, the store, the rural paper, the farm gate or the grange as his pulpit, makes a story of tremendous effort and a large proportion of success.

Final Success and Accomplishments

A trip abroad widened Lubin's own horizon; he began to see how the fortunes of farmers the world over were inextricably linked and gradually there took shape in his mind the idea of a sort of international court of justice for the farmer and more a clearing house which would give him the benefit of modern business methods both in production and marketing.

The story of Lubin's fight in America, of the opposition from enemy interests and his own government, is one of discouragement and defeat. The story of his fight abroad, culminating in his successful interview with the King of Italy, is one of amazing patience and undaunted faith which finally won out triumphantly. The International Institute of Agriculture was founded—through what vicissitudes it requires a volume to tell—and Lubin saw it, hampered though it was by jealousies, bureaucratic systems and natural human deficiencies, actually functioning. The eloquence and tireless patience which finally achieved this end focussed on the Institute the attention of all Europe and made the name of Lubin famous alike in Italy, France, Austria, Germany and Russia.

International crop reporting, cooperative systems of rural credit, the stabilizing of ocean freights and new systems for direct marketing, are all concrete outgrowths of Lubin's lofty ideal to secure justice between men in their economic relations. In many other directions his influence was and still is felt to a remarkable degree. Yet so self-effacing was the man in his lifetime—he bitterly disliked publicity, in spite of his belief in aggressive campaigning for an idea—that even when he was alive he rarely got full credit for his achievements, while after his death his name seemed destined to be forgotten almost over night. From this final ingratitude of a country which, even in his hour of success, never gave him more than a grudging recognition, his devoted boigrapher has saved him.

* David Lubin, a Study in Practical Idealism, by Olivia Rossetti Agresti, with frontispiece and foreword by William Roscoe Thayer. Little, Brown & Company, publishers. $3.50.

One Who Did Much

FEW who read this ever heard of David Lubin, yet farm people owe him much. The crying need of country folk the world over is for unselfish leaders and David Lubin qualified. Miss Elliot's article on this page will tell you how.

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

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We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

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VOL. 111 January 20, 1923 NO. 3

Stand by the League

FOR a thousand years before the foundation of America the principle of democratic institutions where all men have equal rights was more or less of a theory. The founding of America was a great experiment to see whether that theory had any practical application. The American Civil War put the principle of political freedom to the final test of blood and firmly established it upon a basis which will endure to the end of time. As we remember that terrific struggle taking place between Americans, most of them farmers, and the terrible feelings of uncertainty and suffering which they were enduring, we can have some understanding of the feeling that inspired those immortal words which Lincoln delivered at Gettysburg. When he said:

"Fourscore and seven years ago our fathers brought forth upon this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure."

As people struggled for a thousand years to gain political liberty, so they are struggling now for economic freedom and in this struggle there is no one so much interested in the final results as the farmer. For years he has been working on the principle that the way to earn economic freedom is by cooperation. That theory is now being put to test. In the next few months farmers will determine whether cooperation is merely a much talked-of theory or whether it has actual practical application. As Lincoln's words applied to the political struggle, they apply equally well to the present one. We are engaged in a great economic struggle to see whether the principle of cooperation dedicated to the proposition that those who work are entitled to just share of what they earn, testing whether that principle can long endure.

Particularly from now until the end of the February cancellation period will the members of the Dairymen's League Cooperative Association be put to a test to determine the stuff they are really made of. If they secede from the League as the Southerners seceded from the Union, confidence will be destroyed not only among dairymen, but in all other lines of cooperation and the business of farm marketing will be set back many years.

Without doubt there are farmers in the League territory who would make better leaders than some of those now in charge of League affairs. Without doubt the League has made many mistakes. On the other hand, it has been doing a pioneer work and mistakes were unavoidable and the fact remains that it has achieved results. It is a crude machine, to be sure, but it is an improvement over old-fashioned methods and it cannot be made better by smashing it. As for its officers, time and opportunity for making needed changes will come in due course.

But the immediate job is to save your business by standing by it and by working out your problems in your organization from within. The membership of the League have a great responsibility and they will be equal to it.

Committee of 21 Receives Support

REPRESENTATIVES of the Committee of 21 are finishing a long list of meetings which has been held in practically every rural county in New York State to discuss the suggestions which the Committee has made for the improvement of rural schools. This series of meetings makes the second time that the Committee has been over the State to get in touch with the rural people on the school question. The first time mass meetings were held in many different counties to get opinions and suggestions from the people on which many of the Committee's recommendations for school improvement are based.

Of course, not all approve the suggestions for school improvement which the Committee of 21 is making, but rural people are pretty nearly unanimous that there has been a sincere effort made to work out a school program which will lead to better educational opportunities for country boys and girls, and judging by the sentiment of those who attended recent meetings, there seems to be at least a majority of farm men and women who are in agreement with the fundamental recommendations of the Committee's report.

Prices Determine Production

AN Ex-Secretary of Agriculture recently made the statement that during the war the farmers of America increased the number of acres under cultivation by forty million; increased the number of head of live stock by eighteen million and at the same time sent one million of their boys to war. In the same statement he said that all that is needed to increase production is an increased price for farm products.

We have before us a letter from a subscriber on this same subject who says: "Have we forgotten that when millions of our men were removed and more food was needed with which to feed the world it was promptly forthcoming? Are we unaware that when the price of any given commodity approaches the cost of production the farmers promptly bring it down by flooding the market with that particular article? If farm products sold even fairly profitably the labor now available would swamp every city in the land with a bewildering surplus and every intelligent American knows cheap labor means agricultural ruin."

The history of agriculture is completely filled with examples of increased production following increased prices. No longer ago than November, 1922, there was a serious shortage of milk. One not acquainted with the dairy business would think that the only way to increase the milk supply is to increase the number of cows. But the facts are, at the present time, only two months after the shortage there is an oversupply of milk. Why? Because the price during November, December and January was comparatively good. The farmers took better care of their cows and fed more grain, thus increasing the supply for each animal, making a large increase in total with the natural result that the price will have to come down again. If those who are constantly wondering about lack of production on the farm, about the boys leaving the farms for the city and of the need of bringing in more farm labor from Europe, would give a little more study to economic facts, we would have less foolish talk about the danger of over production.

Must Be Measured by Service

THE final test of whether the future market business of farming is to be run by the usual business agencies or by Cooperative Organizations depends entirely upon which can render the more service. We believe there is a place for both. Take the Grange League Federation Exchange, commonly known as the "G. L. F.," for example. This cooperative organization which has for its purpose the cooperative purchase of farm supplies is of tremendous value to every farmer. Its business is increasing in volume; it handles only the highest quality product and it is teaching farmers the value of quality, but its greatest use to its farmers is its indirect influence on the supplies the farmer buys, whether he buys them from the G. L. F. or from some other source.

In a conversation with a retail feed dealer recently, he told us that farmers had little appreciation of the great effect that the G. L. F. business was having upon the whole farm supply market in keeping the cost of feed and other supplies within reasonable limits and in making it necessary for every dealer to improve the quality of his product in order to meet the G. L. F. competition.

We hope that farmers will appreciate this indirect service and see to it that the cooperative organization gets enough volume of business to maintain a strong organization without a too high overhead expense on the supplies handled. At the same time we know that there is appreciation on the part of farmers for the good service that has been rendered by many feed and other local dealers and we do not think it to the interest of agriculture to have all of these dealers eliminated. We do not think the management of the G. L. F. would, if they had the opportunity, eliminate them. In fact there are many dealers already working with the G. L. F. The dealer who is content with a reasonable profit, who is on the job to serve his farmer customers all of the time and who takes a constructive instead of a destructive attitude toward cooperative competition will have a welcome and a safe place in the farm supply service.

Quotations Worth While

Avoid debt as you would the devil.—HENRY WARD BEECHER.

* * *

Genius is one per cent inspiration and ninety-nine per cent perspiration.—EDISON.

* * *

He who reforms himself has done more toward reforming the public than a crowd of noisy, impotent patriots.

Who Should Carry the Family Purse?

Some Say Ma, Some Say Pa, But Most Say Both

THE answer from American Agriculturist readers has been very nearly unanimous. With a few scattered votes for "Pa" and, yes, about an equal number for a purse in the hands of "Ma," the general opinion has been —make it a joint affair.

Some say, have it a sort of double-barrelled affair which opens with equal readiness to the hand of either husband or wife. Some say there should be no pocketbook, but that the bank should receive all the money that comes in and, save for a little emergency change, yield it up only to pay bills by check.

But whatever the method used the idea is the same. "Marriage is a partnership"—that sentence occurred so regularly that we came to expect it by the end of the first paragraph of each letter. And what is more, the letters went on to prove, by the personal experience and money habits of the families they represented, that the typical American farm home is indeed a true partnership, with the mother and father working together for the common welfare of all those under the home roof.

But let them tell their own stories. First we'll hear from two families, each of which represents a successful partnership of twenty years duration. In one case it is the father and in the other the mother who writes:

"I read with interest the discussion on Who Should Carry the Family Purse. When wife and I were united in marriage, (it will be 20 years ago this 24 day of December) we became as one and have clung to that idea ever since, although there are seven of us now. We have but one purse—cream money, hog money, corn money, poultry money, and all that is produced from the farm goes in the same purse, and all the family draws therefrom. As I see it, this is as it should be, for the entire family is as one company, each one helping where he can in the house, or out in the fields, girls and boys alike, father and mother the same. We try to teach our children that the home belongs to them the same as us; that wife and I are only president and vice president, and they are stock holders and all have one common interest."—W. S. B., Ohio.

"The question of who should carry the pocketbook seems to some a great problem. Father and I have been married 20 years. We have always used the same pocketbook, also had the same privilege of signing checks. The money we both receive from the sale of farm products, stock and so forth all goes in one fund to make up our income. Whenever we wish to purchase anything, we discuss this together. I would no more think of buying new curtains than father would buy a horse until we have talked it over together. We keep a little money on hand for our personal use. This is also for the son in High School and the son and daughter in the grade school.

We have always discussed our financial problems before the children in order to teach them the value of money. After all, when a home is founded on love, money matters can easily be settled between husband and wife."—Mrs. E. W., Ohio.

Hearing from the Younger Ones

JUST to show that the younger generation is not behind its elders in common sense and the ability to work hard and pull together, we'll now introduce two young married couples. In both, it is the wife who finds the time to write:

"I saw your question, Who Carries the Pocketbook?" in the December 16 issue, and thought perhaps you could use our little plan, which is working splendidly. We have been married a little more than two years, and find we must figure quite often to make our ends meet, and this is how we carry our pocketbook. All the money which comes in is placed in a box which we keep in a place we are both familiar with, and we both take out what money we feel necessary to spend; but first we consult one another as to what we are going to buy and then buy according to our decision. Then we have what we call a "housebook' and what is spent for the house and for pleasure and general use is put down every day in this book. We also have a book called the 'barn and outside expense book,' where we keep account of all things bought and sold from outside.

Marriage is a Partnership

We introduce you to Mr. and Mrs. J. S. Clarke of Forestside Farm, Steuben County, New York. They were married 61 years ago last April and have lived for the most of that time upon Forestside Farm where Mr. Clarke was born. Not much danger of any serious argument in a real partnership of this kind about "Who Shall Carry the Purse" or about any mutual problem.

Now in this way we are able to tell just how much we are spending a year and just how much is necessary to have on hand in case we would run short. I think it a splendid plan. Then at the end of each year we take inventory and see what outstanding bills and so forth are waiting, and are able to know whether we are going ahead or behind in any way.

We hope some one else would like to adopt our plan and run it as satisfactorily as we are doing, for we want to be honest with each other, and in this way we feel we are."—Mrs. P. H., N. Y.

"Yes, indeed this is an important problem for every family. This is the way we look at it. We rent a flat in a small village. My husband works about thirty miles from here and commutes every day. We are saving money to buy a home, (we want a small farm, about thirty acres of good land), so we both want to put in the bank every cent that we can spare. Every week, my husband writes out a check for my allowance, which we decided would be three dollars and a half a week for the provisions and my spending money. Sometimes I pay the electric light bill, which is a dollar or more a month. Of course that means careful planning to keep the house well stocked with groceries and necessities. This summer I bought fruit and sugar to can it. Last week we bought half a hog. My husband paid for it and I plan to pay him back out of my allowance this winter, as I will not have to buy pork, sausage, ham and lard. We expect to buy a quarter of beef also, and can it. My husband pays the rent and buys the wood and coal. Every two weeks when his check comes we send it right to the bank, then he checks out just what we really need. We find this a very satisfactory way. I am very strong for the allowance system for each member of the family, and then keep within that allowance, even though it be small."—Mrs. M. P., N. Y.

Sometimes a Second Start is Needed

A WOMAN who has learned by experience the bitter results of an unfair system of handling money, tell frankly of her past unhappiness and present content in the hope of helping others just starting out:

"As a rule a woman nine out of ten has the business in her and sees through things better than a man, as men as soon as they get a good start have a big eye and want everything they see. When we first got married we got 54 dollars a month—I was for saving, and saved a hundred dollars in fifteen months. We had a daughter and I thought we could be cared for nicely. One day I told my husband where the money was and when I got around there was only $20 left. I never said anything, but I could see he could not run his income. Like some women, he did not care to work as long as the money lasted. He then handled his own pocketbook. He got very selfish and I couldn't get a dollar from him without his getting mad, and yet he expected three meals a day.

Then I got mad and left him for a week. He asked his neighbors to phone me, and they told him to fetch his wife himself, which he did, and we talked it over and agreed to discuss it together when we wanted anything. We both handled the pocketbook and saved $1,000 in four years. We bought this farm of 70 acres, and now are happy with three little daughters, three horses, four cows, four pigs, 60 chickens, and are contented to stay at home with the American Agriculturist."—Mrs. R. B. N. Y.

We must find room for two more letters, one a very jolly one, which shows that a sense of humor comes in handy in even the most serious matters; the other from a young woman who started learning thrift habits at the mature age of four:

"Who should hold the pocketbook?" That is easy to answer. You should all have a joint account, just as we do. I told that to a friend once and he said his wife would bankrupt him in less than a year if he gave her a checkbook, and told her to go to it. He reminded me of a woman who was so surprised when the bank said she was overdrawn because as she said, "I haven't used half the checks yet." I can't tell what my friend's wife would do of course, but I can say that I haven't been bankrupt yet because of the joint account. In fact I am both glad and sorry to say. I believe my wife is a more economical spender than I am.

If you are as nervous as my friend was about trusting your helpmate with a checkbook, it seems to me that there are several remedies that may help you. First, don't marry the girl you can't trust with money. I presume that advice is too late for a large number of my readers, and it is somewhat difficult to follow at best, because there isn't enough of the right kind to go around for everybody and even the wisest men have been known to make mistakes and the little lady who is so saving before she lands you, may be acting for your especial benefit.

(*Continued on page* 49)

Burpee's Seeds Grow

Burpee's Annual

The Leading American Seed Catalog

Burpee's Annual is the catalog that tells the plain truth about The Best Seeds That Grow. It describes the Burpee Quality Seeds.

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It Pays to Advertise

A Plow Handle Talk on Selling Milk

WE have been able to buy old process oil meal this winter at $50 a ton and we are feeding a little to all of our stock. I can't account for the splendid effect of a pound of oil meal a day. Even less than that seems to lubricate the whole system. Our milk is used almost entirely for babies. It keeps one thinking and sometimes guessing how to be absolutely sure every day in the year that no mistakes creep into the milk. If they do, mother will soon stop buying, the trade is gone, and the business is on the scrap heap.

H. E. COOK

I feel pretty safe in saying that farmers do not as a whole take seriously enough their responsibility in making their products the best they know how. I know the impetus to "do" is retarded by a lack of careful grading. We see milk and veals and vegetables of second quality bought at a common price with better grades, on the general plan that, all together the mixture will pass. It was this faulty plan of grading that started our farms producing a grade of milk that could not be mixed with other grades. It must be manufactured and sold absolutely on its own merits. If we let down the bars of quality we cannot charge the fault to a neighbor. We have to stand it ourselves. Occasionally there is a tendency to shift the responsibility from one person to another but that is so rare as to become negligible; all hands immediately go to it and locate the cause.

Service Helps Maintain Demand

Another thing we find most helpful in giving permanence to our demand, and the best has no value until marketed, is to study in season and out, how much we can do to facilitate the dealers or distributors problems. Of course, there is a limit to what one can do along helpful lines and have money enough left to pay bills, but not many of us have reached that limit. I think business houses call it service,—that's a good word or phrase to use. I know how it ruffles the feathers to have an unscrupulous person take advantage of a kindly disposition when one makes it easy for him. But that class of people are in a hopeless minority after all.

If our business gets thoroughly saturated with real service so that it comes to every worker unconsciously on the spur of the moment and without special thought, enough appreciative customers will soon appear to take the output. Then we can drop off the one that does not fit into the general harmony of the service plan. Customers who uniformly have the best that can be given are wonderfully charitable when an occasional slip occurs, but we must always allow them to be the judges of when the case warrants their charity. Whatever we do in our business to go to extremes in giving service does not altogether come from high ideals or an unselfish devotion. It is good business and is worth while in dollars and cents, and also gives permanency. The time one gives to worrying over the loss of trade cannot go into the productive effort.

Pays to Advertise the Service

Well, what has all of this philosophizing to do with feeding oil meal. It has a lot to do. In our case the general health and appearance of the stock is an asset comparable to getting our milk to the distributor or consumer in good form and on time. We have not learned how to prevent cow troubles, like udder and uterine diseases, I am sorry to say. But we can immediately isolate the animal until she is again in proper shape physically to produce milk that I would use myself or give to a child,—not a bad test by any means.

The New York Milk Commission rules say that a fresh cow must at least give milk for 10 days before her milk can be put into certified bottles. I do not know any way to have every cow physically fit at that time, but we can easily keep her out until she is fit. In our local markets where we come close to consumers we do some advertising. We find that a small double folder printed on a thin card, envelope size, stating in brief paragraphs how the milk is produced and what it will do, is the best kind of advertising. Busy people can read it easily and quickly and these folders can be placed in the hands of mothers and invalids. Advertising is necessary in this day. If one has something to sell, somehow, someway and somewhere, a buyer must be found.

Shrewd advertising often finds or creates a buying clientele which is legitimate and worthy, when the product sold is a needed one, and surely farm products when of good quality are needed. The work of the Dairymen's League in advertising milk and milk products has been of value beyond its cost. When we are complaining that the returns should have been more, let us not forget that the investment in advertising has been a good one.

Advertising is expensive, as I knod from experience. One must be pretty sure that the methods employed are proven ones or if not, that experiments be conducted in harmony with the funds at hand. The fact that milk profits are small, if any at all, leaves small margins to be spent for advertising purposes. If we had a method whereby we could change milk values as easily as corn and wheat prices are changed when they pass through a breakfast food factory, we could carry a full page advertisement in every paper in the land. Maybe in some future day such a thing will happen.

Dr. D. B. Armstrong of Watertown, N. Y. a director of the American Holstein informs me that the association has voted an initial amount of $65,000 for advertising Holstein milk and more will be coming later, a most commendable enterprise.—H. E. COOK.

SPREADING MANURE PROPERLY

PETER WILEY, NEW YORK

Very few people understand the proper way in which to spread manure. The majority of men take a load of manure to the field and literally throw the manure off in chunks, caring very little about the way in which it landed, only so it reached the ground. This practice is very wasteful, causing fermentation and a great loss in fertilizing constituents. When this practice is followed, vegetation grows very unevenly. Some places in the soil the crop grows sparingly, and in other places so rank that the grain will lodge and thereby be wasted.

An effort should be made by the man in charge to have the manure taken direct from the stable to the field, no matter whether in winter or summer, and see that the manure is evenly spread over the soil. In our practice the manure is taken direct to the field and spread evenly over the ground. Even though it might be a sloping field, the practice is followed. We find that very little of the ingredients are washed away down the slope. Occasionally we find those who believe this to be the case, but from experience covering many years we believe the greater part of the fertilizing value goes directly into the soil. Through the summer we bought a spreader for this work, but during the winter we spread by hand. It gives better satisfaction, as the freezing of the manure interferes with the working of the machinery.

Test Seed Corn—All seed corn should be tested for a spring planting. March is a good time in which to make the test. The most satisfactory way is to test four to six kernels from each ear. The requirements for germination are moisture, warmth and air. The ordinary temperature of the living room is about right if it does not go below 50 at night. A shallow box filled with wet sand and marked off into numbered squares with twine makes a good germinator.

The Pace Is Getting Faster

Good Seed Gets More Potatoes With Less Cost

"POP" SCALES used to like a fast horse. Indeed when anybody around Malone got a faster horse than his, Pop had a horse for sale. Once he sold a little brown mare that had lost his favor in this way and he told her new owner that she could "go" in about 2.10. The new owner trained her faithfully for a month but brought her back and said she couldn't do the mile in less than 2.40. Pop said, "Well, what of it? You must be in quite a hurry if you can't wait half a minute."

We suppose when the world's record was held by Maud S, a trotter that could make the mile in 2.10 was just as valuable a racer as Peter Manning is to-day. But race horses go faster now than they did forty years ago. Similarily potato yields have increased rapidly in recent years. Here in New York for 50 years the average yield for an acre of potatoes was only 85 bushels. But in spite of a record breaking drouth in 1921 and a sea on of floods and blight this year, the average yield for each of the past four years in New York has exceeded 100 bushels per acre. We think this increase is largely due to the use of better seed.

Potato Growers Studying their Business

During the past season the Farm Bureaus in over half of the New York Counties organized inspection tours or field meetings to enable potato growers to get together and study the new problems confronting them in the cultivation of this crop. The group snapped above are seen inspecting a Suffolk County Farm Bureau Demonstration

The Best by Test

The three baskets on the right contain the product of one square rod planted with certified seed. The picking basket on the left holds all the potatoes that grew on a square rod in the same test planted with diseased seed. Last year the Suffolk County Farm Bureau tested in this manner 54 strains of Green Mountains and found the New York certified seed to give the highest yields

The Evil of Trading Seed

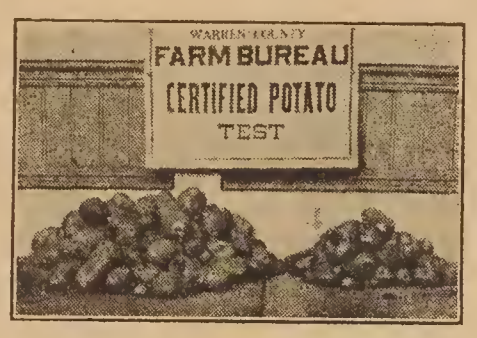
Potato growers have always tried to get the best seed obtainable. Up to five or six years ago, a grower wanting new seed could either send to some commercial seed man for it or change seed with his neighbor. The first mentioned practice accounts for the rapidity with which all new potato diseased spread to every part of this country. The practice of changing seed between neighbors has proven an intensive means of spreading potato diseases locally.

But recently with a system of inspection and certification in which specialists from the College of Agriculture at Cornell visit seed growers crops three times during the season and in which the growers organization certifies to the buyer that the seed stock he buys is actually from one of these crops which has been found to be suitable for seed, real improvement has taken place.

"The chair" recognizes the gentleman who now takes the floor to remark that we don't want any more potatoes. "We are already producing too many potatoes," he says. That seems to be true this year. But why not look at potato improvement as we do at trotting records and say like clipping ten seconds off the trotting record, we have clipped two acres off the land labor and fertilizer—the cost, in other words, needed to produce a thousand bushels of potatoes. Has the gentleman, who is touchy about this "two blades of grass" talk, any objection to getting the same quantity with from one-half to two-thirds the investment of capital and labor.

A Matter of Economical Production

But whether they wish to grow more or fewer potatoes next year, they will likely find it more economical using good seed and adjusting their acreage in accordance with what is sound farm management for them. What no potato grower can afford is to continue to plant poor or mediocre seed and then hope to compete successfully in a branch of farming, the efficiency of which has advanced 20 per cent in five years by the general adoption of improved methods and practices. We have clipped two acres off the land needed to make a thousand bushel crop. Let the man who is not in a hurry drive his slower horse and cultivate his lower yielding strain of potatoes. But just as fractional parts of a second decide the winner in a horse race, so do a few more bushels of potatoes to the acre in a season like the one just past determine whether the grower breaks even or goes in the hole.—J. M. HURLEY.



"Before and After Using"

The Warren County, N. Y. growers who planted certified seed in 1922, found that it takes more than a favorable climate and soil to make a good crop. The average increase in yield of certified seed over home grown seed was 64½ bu. per acre

As necessary as stable manure

A good farmer would be astonished if you questioned his wisdom in using manure.

Manure is all right as far as it goes, but it fails to give the phosphoric acid your land needs, and does not usually give nitrogen or potash in the proportions required by crops whose needs for food differ.

Learn the truth about feeding your crops. Experiment stations have proven beyond question the common sense and profit in the use of commercial fertilizers. Properly used, they will profit you by increasing your yield per acre; improving the grade of your grain, hay and truck; maturing crops sooner; saving labor cost, and building up your soil.

For advice or help, write Farm Service Dept. F. S. Royster Guano Company, Baltimore, Md.

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PEDIGREED OATS treated to prevent smut. Cornellian—Development—Single plant selection by Plant Breeding Department New York Agricultural College. A tree oat slightly gray in color, good stiff straw. In five years trial on Agricultural Experiment grounds at Ithaca, has yielded about five bushels more than nearest competitor. Of all varieties under test there in 1920, it was the thinnest hulled variety and had the largest percentage of meat.

Svalof Varieties, Stocks second crop from Sweden.

Victory is the leading white variety in New York State. In four year tests by Department of Plant Breeding shows this second to Cornellian. Good stiff straw. Should be sowed thin.

Crown newer sort than Victory, longer kernel. In Sweden outyields Victory on partieularly good soil. Lodging resistanee good. Should be sowed thin.

Golden Rain, yellow oat, remarkably stiff straw. In Sweden is unexacting as regards soil. Grain medium and heavy with thiu hull.

Price on all above sorts $1.50 per bushel.

PEDIGREED BARLEY, Cornell's two favorites, Featherston No. 7, a six row barley originated at Minnesota Agrieultural Experiment Station. Medium, tall stiff-strawed sort, high yield heavy grain. Recommended for separate grain crop. Most consistent high yielder of all six row sorts at Cornell Agrieultural Experiment Station. None of this variety available but what shows trace of two row.

Alpha two row, a hybrid. A tall stiff straw sort maturing later than standard six row. During five years has exeelled all other sorts in yield at Cornell Experiment Station. Espeeially desirable for sowing with oats. We recommend the Victory or Crown in eombination with Alpha.

Priee-Featherston $2.00 per bushel, Alpha $2.24 per bushel.

SEED CORN, New York State grown from selected ears in speeial fields.

Cornell Eleven, (Pedigreed), Developed by Plant Breeding Department, New York State College of Agriculture through individual ear-to-ear selection. A yellow dent corn sueeessfully used for ensilage and for husking as well in the more favorable seetions of New York State. Average requirements 120 days for maturity. For grain use 4 to 5 quarts per aere. For ensilage use 6 to 8 quarts.

Oil Dent, (Improved), for husking an ensilage. Somewhat earlier than Cornell Eleven. Adapted when elevation too high or season too short for Cornell Eleven. Same rate planting.

A trial of this seed properly put in will wean buyers of cheap seed. Prices both varieties—Sereened $3.00 per bushel. Tipped and butted for aeeurate planting in eheck rows $5.00 per bushel.

SOY BEANS, Black Eyebrow, an early sort. Bids fair to be most popular sort in New York and Pennsylvania. Price $4.50 per bushel.

HUBAM SWEET CLOVER, Scarified, high germination and purity. Grown in New York. Price small lots 50 cents per pound postpaid. Bushel lots or over, 40 cents per pound.

All priees are freight paid, bags free. All orders to be aeeompanied by 25% cash or 3% may be deduoted if making payment in full.

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Write today; mention this paper.
SEND 10c to cover postage and packing and receive this valuable collection of seeds postpaid, together with my big, instructive, beautiful Seed and Plant Book.
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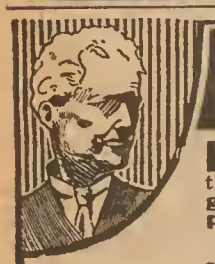
New Burbank Tomato
LUTHER BURBANK'S wonderful genius has created a Tomato that from seeds planted in open ground will bear fruit earlier than plants set out at the same time.
A. I. Root, editor of Bee Culture, states that he planted Burbank Tomato Seed when his other Tomato plants were budding, yet his first ripe Tomatoes came from the Burbank. Mr. Burbank, himself, says, "A second crop of Tomatoes has been grown the same year from the seed of the first crop." This earliest Tomato in the World is blight-proof—fine flavor.
Seeds guaranteed genuine. We control the supply. Sold 100,000 packets last year. Pkt. 50 seeds 10c; 3 pkts. 25c; 7 pkts. 50c; 15 pkts. $1.00. By mail with Catalog of Seed Novelties.
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Picking the Best Varieties

What to Look for When Reading the Seed Catalog

THE seed catalogues have begun to arrive. A few weeks ago we suggested careful reading of catalogues as a help toward better seed buying. Too many gardeners assume that the catalogues are of no value and so do not send for them. It is worth while to look through from three to a dozen each season, even though one does all his buying through salesmen who call at the farm. The reader of catalogues is more ready to deal intelligently with the salesman than the non-reader. He has learned something of the varieties that are offered. He is able to talk more intelligently on prices and values. This does not mean seeking cheap seed, but it does mean having some idea what well bred strains are worth. In this connection, one who plants to sell should ask for the market gardeners wholesale list. Some houses print a separate catalogue for commercial growers, some quote special prices and others offer a flat discount.

PAUL WORK

One who reads catalogues will speedily learn to judge the relative value of statements that appear. This judgment will be by no means final but it will help greatly in making selections. In the first place the extravagant claims of a decade ago are fast going out of style and we seldom see pictures showing a tomato field blood red with ripening fruit. Even yet such boasts as this, are to be found: "Most beautifully shaped tomato the world has ever seen," "Absolutely no waste"—"The best cantaloupe ever grown."

Seedsmen Following Better Practice

Seedsmen have learned however, that such statements are discounted the instant they are read and they are bending their efforts instead toward telling the actual characteristics of variety and strain. Such comparisons as the following tell us at least what the writer thinks: "Not quite so hard but fully as large as Express, which it resembles."

Statements as to origin of variety, strain, and seed are, when made by reputable houses, of great significance. The originator or introducer of a variety is likely to take more pride in it than the general run of seedsmen. Also whether or not a certain bean is "the very best, most tender and delicious" may be a matter of opinion. "Our selected strain is grown here at ——— Farm" is a statement of fact and this is not the sort of thing that can safely be falsified even though the dealer were so inclined. An offering that is so described may be assumed to have received more than usual care on the part of that particular seedsman, and is usually worthy of a trial.

In the same catalogue are listed many sorts concerning the source of which nothing is said. If the house is a good one, the seed may be expected to have been bought with the best care available, but it is not likely to have been the object of special selection by that seedsman. Of course seed bought by a dealer from a good breeder may be better than the results of a given dealer's own selections. In general, however, it is best to buy as near the source as possible, to buy from a house that specializes in a given item, and above all to choose a house which has built a reputation among commercial growers for thorough-going reliability.

Beginning the Year's Operations

The first weeks of the new year find the thoughtful grower bringing the plans for the coming season into definite form. In fact, greenhouse seed- sowing will begin in much of American Agriculturist territory before the end of the month.

There can be little quarrel with the average vegetable producer on the ground that he does not work hard enough or long enough with his hands. The danger is that he be so hard pressed with the tasks of each day that he neglects the head-work that is necessary for the best management of his operations. Intensive effort throughout the day results in bodily weariness and neither tends to encourage the long look ahead. For this reason the plans for the season should be developed as completely as possible before the rush is on.

Some say: "Why plan when you can predict neither the weather nor the markets?" Such being the case, planning requires even more skill and attention. Anyone can plan for a certainty. It requires intensive thought to master the situation so well as to be ready for each turn of conditions. Suppose the early cabbage crop hangs on two weeks later than usual, throwing celery out of the running as a second crop. What is the best thing to plant to afford a fair chance for both crop and market?

Advantages in Early Planning

Advance planning offers clear cut advantages. Economy of land may be gained. The situation mentioned above may be foreseen, and better plants may be used, so making timely maturity reasonably safe, and permitting the more profitable crop to be grown the latter half of the summer. Planning provides the best possible distribution of labor, of expense and of income. In many sections floating labor is hard to get. An even schedule makes it possible to work a few all-season men rather than large and small gangs picked up according to current needs. Expense and income well distributed make for better bank credit and lower interest cost—a smaller idle reserve tied up without interest to carry the peak load. Planning permits careful study of seed, fertilizer and plant problems. The best strains of seed are often entirely sold out by planting time. Planning makes it possible to prepare land in advance, to provide for cover crops and proper rotation, and to consider and relate all the factors of soil, market, climate and labor which work together toward success or failure. Best of all it makes a man think. It leads to reading, study and the asking of questions. It leads to the keeping of records, for a plan on paper is itself one of the most valuable of records.

Ditching Pays — Ditching doesn't cost money, but makes money. Orange County, N. Y., farmers found this true even when they had to blast 400 feet of heavy shale to get their ditch.

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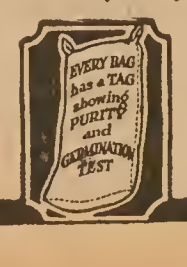

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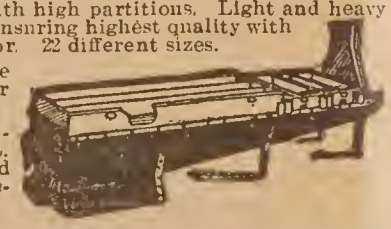
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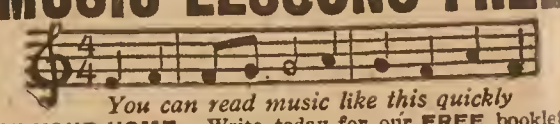
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Who Should Carry the Family Purse?

(*Continued from page* 45)

The second remedy is to reform her after you marry her. Since this is impossible, I won't take time to tell you how to try to do it.

The third remedy, which is probably the best, is to shut your eyes and calmly let her bankrupt you. Perhaps she won't do it after all, and if she does you can start all over again and give her another chance. She may be a lot, as I was the first few days I worked in a grocery store. I ate more candy than my time was worth, but the novelty soon wore off, and my taste for candy was satisfied.

I realize that it is easier to have a joint account on a salary than it is for a man in business. I must confess that we do not keep accounts, but when our check arrives, we do budget it, and so we both know how much we have for incidentals. A lot of the so-called extravagance in wives is caused by the fact that the wife has no knowledge of what she can afford or how much her husband really earns.

It simply isn't a square deal for a man to expect his wife to come to him for every cent she wants to spend. Marriage is a partnership and not an agreement on the part of a woman to keep house for a man for the rest of her life for her board and clothes." —H. L. C., N. Y.

"I believe every one has a desire to carry a purse. Whether we continue to carry one or turn it over to another's management, is a question which I wish we might each decide for ourselves. When I was four years old, a lady gave me a small glass box in which for years I stored my self-earned coins. These I spent as I chose. After I was married this little box was of no use to me for that purpose.

The first morning that my husband went to work he left his pocket-book with me for safe keeping. He has continued leaving it ever since. For some time he kept an account of our expenses and savings, but gradually he left that for me, and now, after fourteen years, he does not know the amount. I cannot say that the handling of money is a pleasure, sometimes it seems almost a burden. Yet I can truly say that the only sorrow I ever knew was the burial of our eight-year-old boy. However, I feel I owe my success with my home affairs to the little glass box and my mother."—Mrs. L. D., Pa.

And here is a letter which sums up the whole question in a business-like, sensible way:

"The question of 'Who should carry the family purse?' is one which should be settled fairly definitely before marriage. By this, I do not mean that it can be settled simply by making a decision as to which party shall control the family money. The problem of the apportionment of family finances is a delicate one. It is a problem which must involve a great deal of concentrated thought if a satisfactory solution is to be made. Unless this question is settled early, much unhappiness is likely to result.

The family money should be handled jointly. The wife should receive an amount sufficient to cover her household expenses, buy her clothing and that of her children, and, in short, to meet all expenses which come within her domain as mother, homekeeper and housekeeper. She is the head of a very important enterprise, and in this capacity should have command of the finances necesary to it. In the same way the husband should have his share, according to his business and other needs. After the money for the necessary expenses of both husband and wife is provided, a certain amount may remain. This can be saved or invested as they jointly decide. Circumstances and conditions differ so widely that each couple must work out for themselves a satisfactory plan of apportioning their money. It is not so much a question of 'How much of the purse shall the husband carry?' and 'How much shall the wife carry?' Right here is a chance to prove whether or not marriage is a partnership. If it is, there will be more than one purse!" —D. E., N. Y.

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Corn	Golden Bantam	.10	.20	.30	.50	1.20
Corn	De Lue's Golden Giant	.15	.30	.50	.85	1.95
Peas	Gregory's Surprise (earliest)	.15	.25	.40	.70	1.70
Peas	Gregory's Excelsior	.15	.30	.50	.85	1.85
Peas	Pioneer	.15	.30	.45	.80	1.85
Peas	Gradus (Prosperity)	.15	.30	.45	.80	1.85
Peas	Admiral Dewey	.15	.25	.40	.70	1.70

		Pkg.	Oz.	¼-lb.	1-lb.
Beet	Gregory's Crosby Egyptian	.10	.20	.35	1.25
Carrot	Prize Danvers	.10	.30	.85	2.55
Cabbage	All Seasons	.10	.35	.75	2.75
Cucumber	Davis Perfect	.10	.20	.60	2.00
Lettuce	Black Seeded Tennis Ball	.10	.25	.65	1.75
Onions	Southport Yellow Globe	.10	.35	.95	3.00
Radish	Scarlet Globe	.10	.20	.50	1.55
Radish	White Icicle	.10	.25	.50	1.50
Spinach	New Zealand	.10	.15	.50	——
Squash	Delicious	.10	.25	.75	2.50
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Do We Prune Too Severely?

Prominent Growers Say "Yes"

"DURING the first year my apple trees are trimmed back to about two feet high and with three branches," writes Arthur Sill of Wayne County, N. Y. "During the second year they receive practically no trimming, while in the third season I cut out a few of the inside limbs which cross. During the next two seasons little trimming is made. That which is done, however, is to develop the tree into a shape which conforms as nearly as possible to the ideal type.

"The older trees receive enough pruning to remove the suckers and to take out enough branches to admit light and spray materials. According to my observations, I believe the tendency is to over-prune apple trees, especially while young. To renovate real old apple trees, the head of the tree should be cut down radically just above the branches which have an outward tendency. The sides of the tree are then thinned. To facilitate matters early in the spring, I suggest that as much orchard work as possible be done during the winter months when the weather permits."

Right Pruning the First Three Years

"During the first three years my apple trees are trimmed only enough to avoid crotch limbs and to guide the shape which seems nearest to the perfect tree," is the message of C. R. Howard of Columbia County, N. Y. "During the next two years I keep constant watch of the trees and cut them back when the growth is abnormal. The older trees are pruned in the late winter, when the branches are not frozen. To renovate an old apple orchard I would cultivate and fertilize the ground to encourage new growth. Then, I would cut back the trees mercilessly.

"To put the commercitl orchards in good shape for next season, I am planning to put particular attention upon the removal of dead wood, crossed limbs and a little outside thinning of the branches where they grow too closely together. I do not remove outside branches except where two are present, and if there is only room for one I will remove the upper one."

"It is my practice to give no pruning to apple trees under three years old," writes J. A. Hepworth of Ulster County, N. Y. "Between three and five years old I merely prune out the interlocking or crossed branches. The old trees are pruned at any time between November and April, when weather and labor conditions permit. I keep out the sprouts and thin out the branches for light and air a little bit every year.

Tendency to Over-prune

"It has been my observation that the tendency among fruit growers is toward over-pruning of apple trees. If I were to renovate real old apple trees this coming season, I would head them back severely. It takes two or three years to get an old apple tree in right condition. In general, I think that pruning should be done every year rather than occasional severe pruning."

"During the first three years that I have young apple trees, I simply cut out all crotches and crossed limbs and keep the tree open; in fact, this is my practice until the tree is five years old," writes T. E. Cross of Dutchess County, N. Y. "The older trees are pruned whenever there is time, in much the same way as the young trees. I aim in my pruning to retain as much leaf surface and bearing wood as possible. Sometimes I believe that the tree is injured by over-pruning. In the case of real old apple trees, the means of renovation vary with the shape and condition of the tree.

"Until the young trees begin to bear I thin as little as possible and from my observation in recent years, I think the tendency has been to cut the trees too low. The limbs come down quickly enough when loaded with fruit and should not over-lap."

Profit by Past Experience

"In my apple orchards I have Baldwin and King in solid blocks and also the same varieties interplanted with one another," writes D. J. Marvin of Oswego County, N. Y. "If I was to do the same job over, I should specialize on the following varieties: Baldwin, King, Wealthy, Dutchess of Oldenburgh and Winesap. At present my trees are spaced 32 feet apart, but for new plantings I would set them 40 x 40 feet. As the trees get older they interlock and make difficult picking. I have eight acres in apples.

"To bring my apples into early bearing I care for the trees and the soil by practising rotation of crops, consisting of corn, potatoes, wheat and clover. The clover is plowed under in the second year. This rotation is continued for 15 years, when the orchard is left in sod and used as a night pasture for my cows. I spray with Bordeaux mixture after the blossoms fall and again about 10 days after. During the rotation of crops I give the orchard a good coat of barnyard manure."

Choice Varieties Are Baldwin and Spy

"My principal varieties are Baldwin and Spy," writes John H. Lewis of Allegany County, N. Y. "These are planted in solid blocks. I have also one row of Belleflower, two rows of Russet, one row of the two varieties mixed, one row of King and two rows mixed, a block of King and a third orchard with all mixed varieties. If I was to do the same job over again I should plant the apples in blocks, with cherries interplanted between them. The varieties of apples I would use would be Spy, Greening and Baldwin. At present my trees are spaced 30 x 30 feet, but in new plantings I would space them 60 x 60 feet because they need more chance to branch and more sunlight for color. I now have 10 acres in apples and do not plan to set out any more this coming season.

"Since my trees are all old and large I have never given them special cultivation, except to trim them heavily when I first purchased the farm 10 years ago. Since that time they have received lighter trimming. I fertilize the orchard with barnyard manure and spray about three times a season. My apples are usually sold in bulk, as that seems to be the best way in this locality. The general run of orchards in this section is small."

Protect Orchard Trees—Valuable fruit trees are likely to be girdled by mice and rabbits if deep snows lay on ground for a long period. Remove grass from the base of the tree and mound a little earth around it; this will help to prevent injury by mice. Close mesh wire, tar paper or wood veneer bound with tarred string around the trunk to a height of twenty inches will give protection from rabbits.

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Farmers Back College Needs

News from the Snow-Clad Farms of New York

NEW YORK State Conference of Farm Organizations met in Syracuse, on the evening of January 5th, to give consideration to problems effecting all the farmers and all of the organizations of the State. Dean A. R. Mann, of the College of Agriculture, was present and outlined to the Board the deplorable conditions at the College which exist because of lack of adequate buildings for housing the different activities.

Considerable study has been given by the farmers of the State to the needs of the College and recommendations to the State were made by the farm organizations two years ago for a building program which when completed will give New York State a college of agriculture in keeping with the State's greatest industry.

Governor Smith in his first administration approved this building program as recommended by the farmers, and the Legislature made the appropriation for a dairy building, the first unit in the program. Governor Miller, while in general sympathy with the building plans, did not think that there was money available to carry the program forward at the time, and the program was therefore held up.

Conditions at the College are so bad because of lack of facilities and room that the Conference Board of Farm Organizations feel that there should be no more delay in the completion of the program as it was planned two years ago, and voted unanimously to so recommend to Governor Smith and the new administration. Senator Blauvelt who attended the meeting of the Conference Board stated that he was sure that Governor Smith was in sympathy with the idea of completing the college building program as rapidly as the finances of the State would permit.

Discuss Building Needs of State Fair

Some discussion was given by the Board to the building needs of the New York State Fair Grounds. There is need for a Horticultural Building as was stated in one of our recent issues and there is also need of a Coliseum. E. R. Zimmer, Secretary of the New York Holstein-Friesian Association made the point at the meeting that his Association was interested in having a Coliseum built on the Fair Grounds before the Horticultural Building was built, because the Coliseum might be the deciding factor in getting the World's Dairy Congress to come to Syracuse in 1923. Mr. Zimmer also made a very fair statement. He said that his Association would work in full harmony with the other organizations on this as well as on all other matters, and that his Association would not have suggested the building of a Coliseum before the Horticultural Building had he been informed that there had been an agreement by the Conference Board that the Horticultural Building should come first. The Conference Board laid the matter of the State Fair buildings on the table until it was definitely decided whether or not the World's Dairy Congress would come to Syracuse.

Mr. H. E. Babcock resigned his position as secretary of the Conference Board of Farm Organizations because of so many other pressing duties and E. R. Eastman was elected to succeed him.

NORTHERN NEW YORK NOTES

Farmers in northern New York are suffering from a droughth as severe as any normaly encountered in summer months. Not in many years have springs and wells gone dry in December, and Christmas found farmers drawing water for their stock or driving them long distances to drink. Each day finds more men in the northern counties at their wits end to provide water for their animals and for their homes too in a number of instances. Some of the older men say that a similar condition prevailed about 42 years ago.

Clover in St. Lawrence, Jefferson and Lewis counties went into winter in very good condition, and bids fair for a good crop for the next season. The covering of snow has been very light so far, a total of only some five or six inches on the average by the 20th of December, and most of that coming in the last week.

Jefferson County Pomona Grange is inaugurating a move for a uniform text book law for Jefferson County, for those schools outside of cities or any union free school district maintaining an academic department. Such a law has been functioning in St. Lawrence county and giving satisfaction. With the "hit or miss" text book system, it is a common experience for the renter to fit out his children with a complete set of books, only to find the following year when he moves to an adjoining town that he must go all the way around again as the books used in the new school are different.—W. I. R.

IN CENTRAL NEW YORK

Tioga Co.—Campaign for raising funds for Farm and Home Bureau committees have been appointed to canvass each town. The seventh annual convention of Farm and Home Bureau was held recently, with separate sessions in the morning and combined meeting in the afternoon. The speakers were Miss Jennie Jones, Montgomery Robinson and Jared Van Wagenen. The Nichols Male Quartette furnished the music. Farmers are generally talking about the pool. Non-poolers held a festive occasion at their new plant in Owego recently. Poolers claim they are making the most out of their dairies, and non-poolers claim the same, though bemoaning the cost of hauling. Some feel better regarding the milk situation and some do not. The price paid for milk is not in accordance with that of feed and labor. Farmers receive 45 to 50 cents for butter, eggs 54 to 65 cents a dozen, potatoes 60 cents to $1 per bushel. Hogs are selling from $10 to 20.—Mrs. D. B.

Chenango Co.—Farm Bureau and League meetings have been most important lately. Farmers are discussing the distressing price and the pool more than anything else. Poolers are getting attendance at their meetings, while non-poolers' meetings do not so much. Just now there seems to be a little better feeling toward the pool, due, I believe, to better prices and a little more information being given. Cabbage and potatoes are about all that is being sold except milk. Potatoes have not been bringing enough to pay for raising them generally. In a few cases they have trucked them for 35 to 40 miles, and have sold small quantities for $1. Most have gone around 50 cents.—H. H. Lyon.

Poultry Schools Successful

The series of poultry schools arranged by the County Poultry Committee of Suffolk County are proving very successful, as many as 200 poultrymen attending a single session. It is estimated that from 65,000 to 75,000 hens to be carried over this winter are represented in the flocks of the poultrymen present at the meetings. A charter has been issued to the Acme Duck Farm, Inc., of Eastport. Capital stock to the value of $15,000 has been issued. The concern operates the plant of the late Hugh G. Seamans.

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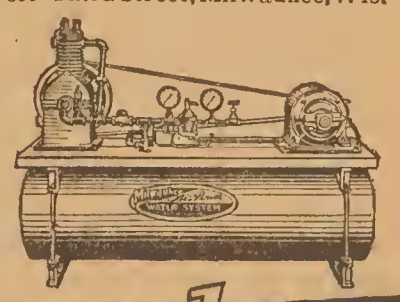
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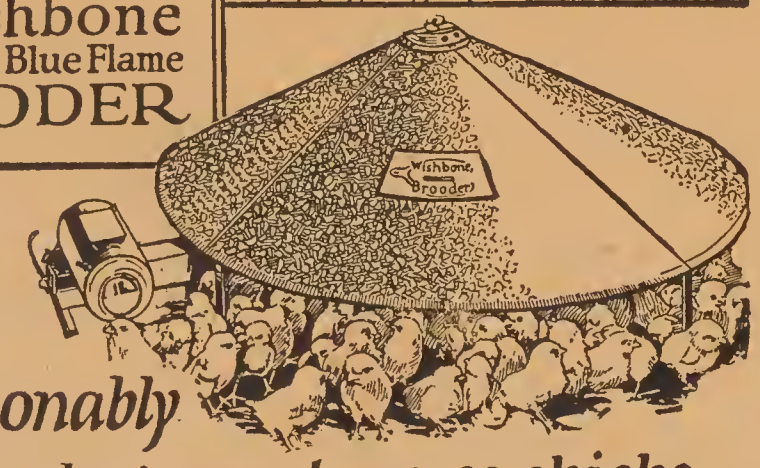

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Penn State Fund Grows

As Grangers, Dairymen and Potato Growers Unite

THE milk producers of the southeastern part of Pennsylvania, through the Interstate Milk Producers' Association, recently joined in the emergency building fund campaign of the Pennsylvania State College by contributing the money equivalent of one day's milk supply toward the erection of a student dormitory to be built by the live stock men of the State. The farmer milk producers in other parts of the State are undertaking movements in support of the Penn State $2,000,000 drive.

Tioga Grange Gives $1000

Scores of Granges throughout Pennsylvania have pledged funds to the Pennsylvania State College emergency building campaign for $2,000,000 for student health and welfare buildings. One of the most recent of these pledges was for $1,000 from the Pomona Grange of Tioga County, where the members are all enthusiastic boosters for State College. The pledge is so far the largest on record from a Grange organization.

Prominent Potato Grower Gives $3000

"The Grand Old Man" of Pennsylvania's rapidly growing potato-raising industry, Dr. D. D. Fritch, of Mecungie, Lehigh County, has given his approval to the welfare building campaign of the Pennsylvania State College, with a pledge of $3,000 toward the new student hospital.

Announcement is expected shortly that the boy potato clubs of Butler, Beaver, Potter and Cumberland Counties will have completed the raising of $15,000 toward the hospital fund, or one-tenth of the entire amount needed.

PENNSYLVANIA COUNTY NOTES

Clarion Co.—We are having very fine winter weather. Up to the middle of December it had been very mild, without a great deal of rain. In fact, we have had a very excellent season, and farmers have been able to clear up their outside work very well. Some were rather late husking corn. Prices on farm products are low. Butter, 50c; eggs, 50c; corn, 40c; oats, 45c; wheat, $1; fresh grade cows, from $40 to $90; pure-breds from $100 to $300; horses are low in price and selling slowly.—C. Reybuck.

Crawford Co.—Lots of fall plowing and work in general was cleaned up before snow comes. Our roads froze up quite smooth, so that traveling is not really bad. The temperature has been averaging from 10 to 20 degrees below zero. Many public sales are taking place, but things are not selling high. Most farmers are now hauling out manure and cutting wood. Eggs are bringing from 65 to 70c; butter, 50c; dressed pork, 13c; live veals, 10c; chickens, 16 to 18c live weight; potatoes, 75c; apples, $1 a bushel; buckwheat, $2 a hundred.—J. F. S.

CENTRAL NEW JERSEY NOTES

Wheat of the present year is badly infested with weevil and much of it is unfit for flour or seed. Poultrymen, however, are eager buyers, and there is an inadequate supply of grain for their use. Some of them who have invested all they have in large plants look with some fear on the rapid increase of large commercial plants. Two to four thousand layers is the usual thing. The long drought remained unbroken the second week in December and wheat has made a poor growth. There is a decreased acreage; early sown has a poor stand, while that sown late in October and early November has come up nicely. The cold dry winds retarded growth.

Many farmers are backward in husking, and some fields were untouched in early December. The many public improvements, state roads, new schools and buildings of many sorts, have drawn all laborers from the farms. Farm owners have, in many instances, postponed their own work to accept the attractive pay in their pursuits. There are several corn shows staged for this month, but it is very doubtful that the splendid display of last year can be equaled. The apple crop has been more than abundant and prices have ruled low, but much better than in more remote localities. Losses have been large owing to unfavorable weather and lack of pickers. A great quantity of cider is being made and has a fair demand. Early pullets have been laying steadily for several months and the condition of the flocks is very favorable. Pasturage has been prolonged later than usual notwithstanding the drought.—George E. Schwartz.

Monmouth Co.—Practically all fall work has been completed. Potatoes have been fairly well cleaned up. No money was made last year. Undoubtedly acreage will be curtailed this year by one-half. Farmers are arranging for a greater variety of crops and vegetables. Corn, 50 cents a sheaf, rye, $17 a ton, hay, $18, corn stalks, 3½ cents a bundle. Milk in Trenton, 7 cents.—C. W. H.

Hunterdon Co.—Rains during the middle of December brought great relief to this part of the State. We have been suffering from drouth since August, and many small streams have been dried up. Corn husking was all done up to the middle of this month; farmers have been ready for heavy weather. Many farmers say that they have never known such conditions for fall work. The weather has been very dry, windy and cold. Much fodder was lost. Farmers are complaining that their cows are not doing well. In fact, everything seems to be going endwise. Everything the farmer has to buy is too high for what he has to sell. Eggs bringing 60c, butter, 55c; wheat, $1.10 to $1.20; corn, 70c; oats, 50c. Apples are dull; hay, $18; pork, 13 to 14c.—J. R. F.

CENTRAL OHIO FARM NOTES

W. E. FARVER

During the past several weeks the weather has been quite changeable. Now the mercury is hovering around 10 above and the frozen ground makes traveling difficult on the mud roads. Wheat has had a fair chance, although dry weather held it back somewhat. Springs and wells were very low all fall, but rains during past week or two have accelerated the flow of water.

Farmers are busy with seasonable activities; hauling manure, cutting and preparing firewood and butchering taking lead at present. Butchering is mostly done, many hogs having been killed for home use. Stock went into winter in good shape. Some still running on pasture by day at present. Never have we seen stock out so late in the season here. Considerable live stock being marketed and all in good condition. Prices have remained quite uniform all fall.

Eggs are selling locally at 53 cents now—62 cents was highest here. Very few flocks were busy at the time prices were up. Late hatching resulted in a lot of immature pullets. This means spring eggs. For some reason or other many whose pullets were hatched early did not get any eggs. Not all can be laid to the feeding, for among these were good feeders. Seems as if some seasons are not conducive to late fall and winter egg yields.

Professor Vickers, of Ohio State University, met with the flock record keepers at Millersburg, November 29, in an all-day session. Vickers is a live wire, and he kept the bunch awake and interested from beginning to end. All seasonable topics were touched, and the meeting ended with a mash hopper and baffle board ventilator construction demonstration on one of the demonstration farms near Millersburg.

Locate Wet Spots Now—The farmer would do well to inspect his field of corn at this time, noting all low, wet areas that have failed to produce on a par with the rest of the field. Plans should be made now for draining these wet spots after the crop has been harvested and before cold weather sets in.

Lights in the Poultry House

Mrs. F. W. Owen Tells How She Increased Egg Yields

I HAD very good luck this summer. By October 1st, I had 325 pullets and 85 yearling hens in my laying houses. Our farm lighting plant was installed in October and by November 1st, was ready for use. At this time the pullets were five months old and part of the hens had molted but were not laying yet. The hens which had not molted were laying about a dozen eggs a day. The pullets were large in size and had had free range all summer, so were strong and healthy, and with a little coaxing, ready for a good winter's work.

The lights were turned on November 4. We got eight eggs from all of the flock that day. At the end of a week they had increased to 20 eggs a day. In just 20 days, on the 24th of the month, they laid 100 in a day. The 4th of December, just one month from lighting, the number was 155 which jumped to 200 on the 8th. On the 19th, 222 eggs were laid. About 30 pullets were too young to lay so you see this is almost 60 per cent production.

One point I notice is the regularity of the hen's laying, the number of eggs now averaging about the same from day to day. I also notice that very few eggs are laid after 3 o'clock in the afternoon and not very many on the roosts as many of the hens will get on the nests almost as soon as the lights are on in morning. If plenty of shells are kept before the hens, I have practically no loss from soft shelled eggs so do not think I am forcing the hens too much.

Feed and Care to Get Eggs

As I have told of my results, I will now try to give a few suggestions as to how I feed and care for my flock to obtain eggs. The lights are all controlled from the house and are put on at 4:30 in the morning and as there is always feed left over, I do not feed until 5 o'clock. Then I water and give about one quart of mixed grain to every 30 or 40 hens. The mixed grain is composed of one bushel wheat, one bushel buckwheat, and one-half bushel heavy oats. At 9 o'clock I feed about the same amount of grain again, water, fill dry mash boxes and gather eggs.

Oyster shells are always kept before the hens. The dry mash is mixed as follows: 200 pounds wheat bran, 200 pound meal, 100 pound gluten, 100 white middlings, 100 meat scrap. Every other batch I use only 100 pounds of bran as I do not want the hens to lose weight. At noon I give apples, potato parrings or whatever green feed I have, refill water dishes, gather eggs, etc.

About 2:00 or 2:30 I give a warm mash of the dry feed mixed with water or sometimes cooked potato parrings. I am careful to feeding only what the hens clean up in 10 or 15 minutes. At dusk the lights are turned on again and at 5:30 the hens get their last feed for the day which consists of one-half cracked corn and one-half mixed grain. One quart of grain is fed for about every twelve or fifteen hens. As the floor is kept well littered with chaff and straw, quite a lot remains for the next day and the hens keep busy most of the time. The coops are kept clean and dry. Plenty of fresh air is admitted through 2 feet by 4 feet open spaces, two or more to a coop. I am very careful to keep enough oyster shells in the hoppers so the hens will not be compelled to eat the very fine particles in the bottom.

Range Restricted in Bad Weather

Then hens are given free range when there is no snow on the ground. By feeding a large amount of grain at night the hens will go to roost even with the lights on and have plenty of feed to last well into the night. One-half or three-quarters of an hour after the hens are fed at night they will all be on the roosts and the lights can be turned off. One 50 watt bulb is sufficient for a coop 12 feet wide and up to 24 feet in length. It should be placed nearer the front than the back of the coop so as to light the floor under the dropping boards.

I have been in the poultry business for 15 years and have learned many lessons in the hard school of experience. I am the first one in this vicinity to install lights in my henhouse and I am well satisfied with their success as a means to greater winter egg production. I am sure that electricity will prove a great help to poultry keepers and sincerely hope that the readers of American Agriculturist will gain help and encouragement from my suggestions and have a happy and properous New Year.—Mrs. Floyd W. Owen, Steuben County, N. Y.

MADISON SQUARE POULTRY SHOW BREAKS RECORD

The thirty-fourth annual occurence of this Premier event in the Poultry World takes place from January 24th, to January 28th inclusive. Entries closed on the 3rd, with by far the largest number of exhibitors ever on record at this show. Every State in the Union is represented, either with poultry or pigeons, rabbits or cavies. Geography makes no difference in the minds of exhibitors, when it comes to Madison Square Garden. Entries as far west as California and from almost every Province of Canada, as well as a large entry from Lord Dewar, of London, England.

One of the educational features of intra-state interest will be a judging contest composed of teams of students from the Agricultural Colleges of Connecticut, Massachusetts, New Jersey, New York, North Carolina and Pennsylvania. Club teams of boys and girls will be entered also from Connecticut, Massachusetts, Mississippi and New Jersey. These judging contests will be held Friday morning, January 26th, at nine o'clock.

Big Corps of Judges

Judges of international reputation will handle the numerous classes. Some indication of the magnitude of their task will be appreciated when we observe that it takes these twenty-two experienced men two full days to do their work.

Keen interest centers this year in the competition for a special prize of $250 cash for the best exhibition pen in the show, a pen consisting of a male and four females. The "Tex Ricard" cup for the best display of Pit Games has brought out entries from several places in England. Mr. George McKee Bowman, of the Biltmore Hotel, is offering two cups, one for the foreign exhibitor winning most points in Bantams, and another for most points on Sussex. The Rufus Delafield Memorial Cup is offered for the best Buff Orpington Cockerel.

Pekin Duck breeders will gather from all parts of the country with large exhibits for their National Club meeting in commemoration of this being the fiftieth year in which these ducks have been bred in this country.

This Show will see the introduction of another new variety of poultry—the Chanticler. It marks the successful culmination of a series of experiments begun about fifteen years ago by a Trappist Monk, Brother Wilfrid by name, at the Canadian School of Agriculture in the Province of Quebec.

PECULIAR TURKEY TROUBLE

My turkey gobbler is affected with some thing that causes a swelling of the head and discharging from the nose. We thought it was just a cold, but now the rest of the turkeys are acting in the same manner. They dig their necks making them blood-red and sore. The tom's head swells to such an extent that his eyes are often almost closed. The birds do not seem to be failing.—(Welton T. Powell, St. Lawrence County, N. Y.

A first thought seems to indicate some contagious throat trouble. Isolation of unaffected birds should come first. Apply a 10 per cent solution of argyrol to the head and throat, using a camel's hair brush or feather. The following may be procured at your local pharmacy, and added to the drinking water every time the supply is renewed: Tincture capsicum, ½ ounce, and Fennell water, 1 quart. One teaspoonful is sufficient in a pint of water. Thorough disinfection of the roosts and house should be taken into consideration, using some of the creosote or kerosene preparations.

Get Winter Eggs!

See to it that there is song and cackle, scratch and action, going on in your poultry yard.

That's when the eggs come.

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100 hens, the 12-lb. pkg. 200 hens, the 25-lb. pail
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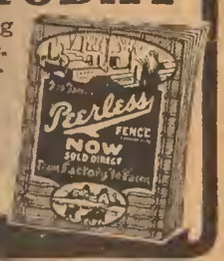

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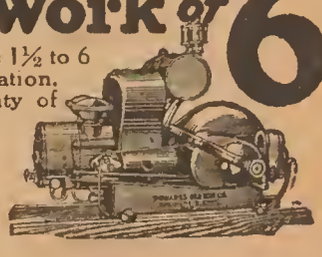

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Why I Chose Brown Swiss

Some Surprising Facts About A Little Known Breed

IN the spring of 1919 the writer assumed the duties of herdsman on a Montana dairy farm. The herd consisted of about sixty pure-bred Brown Swiss cattle. It was my first experience with this breed, therefore they were watched with an "eagle eye."

Each cow's milk was weighed and her record carefully computed at the end of every month. In this manner it was easy to establish concrete facts concerning the value of each cow rather than to employ the ordinary "guessing system."

It was plainly evident that the Brown Swiss were unusually good grazers and efficient consumers of roughage. Without an exception every cow produced very liberally. The herd test ran about 4 per cent. That there were no "lemons" in the entire herd raised a question in my mind—Is this an accomplishment of a breeder or a characteristic of a breed?

Within a few weeks I became rather enthusiastic over the Big Brown Breed and wanted to learn of other herds rather than just the one under my care and observation. Immediately I got in touch with other herdsmen and found that the merits of the herd in which I was working were possessed in a similar degree by other herds in both Switzerland and America. This was evidenced by official records, and especially in cow-testing associations where the Swiss invariably give good account for feed consumed.

An Old European Breed

With much interest I found that Switzerland is the country where the breed has been developed. For many centuries this peaceable little republic nestling in the heart of the Alps has been famous as a dairy center. Even to-day it occupies one of the highest places among nations in regard to cattle and dairy products. The best dairies in Germany, Italy and bordering countries are made up of Swiss stock whose produce has long commanded a premium in Berlin and other European cities. Size, beef qualities and milk production tend to class the Brown Swiss as dual-purpose cattle. So many reports of high producing cows were made, however, that in 1922 the American Brown Swiss Cattle Breeders' Association organized a Registry of Production.

Owing to the fact that this organization is in its infancy and that most cattle of this breed are owned by farmers of only ordinary circumstances, the Brown Swiss Cattle in America have never completed very many sensational records. Yet their owners are justly proud of the high average in milk and butterfat made by the breed. Furthermore, each year shows that rapid strides are being made. Already this year the two-year-old record has been raised from 558 pounds butterfat to 570, three-year-old from 585 to 722, and the mature-cow record from 798 to 927. Many other good cows are now on test, and it is expected that 1922 will bring the breed average well above 11,000 pounds milk and 450 pounds butterfat.

Compact, well-held udders of this breed accounts largely for so much freedom from teat troubles. Quietness and gentleness aid them in longevity, as many cows from 15 to 20 years of age are breeding regularly and producing well.

On May 18, one of our cows,, Beauty Collier, freshened—a surprise, however, as the owner had her booked to freshen later in the summer. We had decided to put her on test along with ten other cows. She had no fitting. Unfortunately she had been milked up to calving. She started off at a good clip and was soon giving 60 pounds milk per day. Even under her handicap we foresaw that she would make a creditable record. During the month of June she averaged 75 pounds milk a day. Her high day came in July, which was 80.1 pounds.

True Brown Swiss Type

Nellie's Stasis, champion Brown Swiss Bull at the National Dairy Show, owned by L. S. Marshall & Son, of Michigan

Production Under Average Conditions, and Less

Pasture was good for the first four months, and Beauty cared little for grain, yet she averaged 71.6 pounds milk a day, this being more than double the production of the average cow in the United States for an entire year and produced at less expense.

October had come and the Montana days were chilly. The mercury dropped to zero. We were not favored with a comfortable barn in which cows could be kept. A straw-stack afforded their only means of shelter. Beauty had to take her medicine with the others of the herd. Her previous half-dozen winters had fitted her for the job. Fortunately she had a great capacity for feed and a fondness for alfalfa hay. She seemed to realize that the more she ate the more would be left to produce milk after a required amount was taken by nature to melt the snow which fell on her back.

During the winter a number of good cows freshened—several belonging to the Beauty family. It seemed easy for these cows to produce from 60 to 80 pounds milk a day. In fact, Beauty Collier 2d, a full sister to Beauty Collier, gave 81.6 pounds on January 31.

Hardiness and endurance were displayed on every hand. Calves often froze their ears, and occasionally an ear came off. Yet they made vigorous growth. A granddaughter of Beauty Collier 2d won second prize at the National Show, and both ears were frozen off tight to her head.

Old Beauty completed her 305-day double-letter test with 18,076 pounds milk, 633 pounds butter. Within her year she produced 19,664 pounds milk and 709 pounds butterfat. The grand cow freshened again just twelve days after finishing test, and gave over 60 pounds milk a day from two milkings. This great cow returned $600 worth of

(*Continued on page* 55)

Senate Reports Voigt Bill

Dairymens' League Announces December Pool Price

THE Senate Committee on Agriculture has reported favorably the Voigt Anti-filled Milk Bill. This constitutes one more step toward the passage of this bill to protect the public health and the dairy industry by forbidding the movement in interstate and foreign commerce of compounds of skimmed milk and vegetable oil made in the semblance of milk.

The Voigt bill passed the House of Representatives by a large majority in May, 1922. It has been in the Senate Committee ever since.

The comments of the Senate Committee in its favorable report on this bill are extremely interesting. The report says that "your committee does not doubt that the sale of filled milk as at present carried on is a violation, if not of the letter, of the spirit, of the Pure Food and Drugs Act." The report states that "investigations in many cities revealed that dealers were selling the compound as being as good and better than regular evaporated milk."

The Committee also points out that this substitute is used in some hotels and restaurants and by ice-cream makers in the place of genuine milk, and that a label could not protect the consumer against such fraud. The Committee says "vitamines, which are so necessary to main health, are not found in vegetable oils and fats. It is therefore all the more necessary that we supply the vitamines in the milk. Milk is the one chief food of the nation, and no adulteration of it or substitution for it should be permitted."

Committee Appreciates Importance of Dairying

The Committee's comment on the importance of the dairy industry is also interesting. "The civilization of our country is dependent upon the dairying industry. We should do everything possible to encourage it. We need it to preserve the fertility of our soil, and the time to prohibit the filled milk traffic is now, before it has done greater damage to our health or to one of our basic and indispensable industries."

The Senate Committee is to be congratulated upon its report on this important bill. It now remains for the Senate to pass it. It probably will be passed if it can be brought to vote this session. You can do no single act of any more importance to your business than to write the Senators from your state urging on them the necessity of pressing the Voigt Filled Milk Bill for passage and for voting in support of it.

DECEMBER POOL PRICE $2.82

The Dairymen's League Co-operative Association announces $2.82 a hundred as its gross pool price for the month of December. From this 7 cents per hundred are deducted by the association for expenses of administration and advertising and 20 cents are borrowed by the association on its certificate of indebtedness plan. This leaves a net cash price to farmers of $2.55. This is the base price for milk containing 3 per cent butterfat in the 201-210 mile freight zone from New York City.

The association calls attention to the fact that the net cash price of $2.55 to farmers is 28½ cents per hundred more than the November price. The December price compares very favorably with the December 1921 price which was $2.39.

PUTTING UP ICE

CHARLES L. STILES, NEW YORK

Now that the cold wintry season is again at hand too much cannot be said about the importance of putting up ice. It is essential that sufficient quantity be stored to tide the dairyman over next summer's hot spell, which is sure to come as the seasons pass and go. Although it is essential that one should have a well-built ice house, very good results can be obtained in utilizing an old barn or outbuilding for packing away the season's supply. Of course, the ideal place for storage is in a double-walled house, especialy built for storing ice, especially where it is possible to have air space to cut down the rate of melting.

It is not really necessary to have a modern, up-to-date ice-making tools. Of course, they lessen labor and speed up the work considerably, but very good results can be obtained if just an ordinary cross-cut saw and a long board used as a straight edge, so a straight line can be followed in cutting out the square blocks. In order to facilitate rapid handling and make it more convenient in packing, the cakes should be cut in rectangular forms. Pains should be taken to keep the edges straight, as it packs very tightly, and consequently keep much better.

Overcoming the Help Problem

A good plan to follow is to change work with neighbors during the ice-harvesting period, especially if the ice is to be hauled a considerable distance. It calls for heavy labor at its best, and having plenty of help around is highly essential. It is a very unpleasant experience to have a big mess of milk, perhaps $15 worth, sent home some sultry morning next July. But that happens once in a while in the best regulated dairies. A few dollars spent in putting up a quantity of ice at this season of the year will eliminate much of the danger of such an occurrence taking place.

The quantity put up, of course, depends upon the size of the dairy. But three tons per cow is ample allowance if milk is being produced for the fluid market. That allowance is sufficient to overcome wastage and to take care of the household requirements as well.

Sawdust, ground cork or poor quality swamp grass, make good coverings. Personally, I prefer sawdust, if it is available, as it is easy to handle, more compact and makes a mass more air tight. It is quite essential that air should be kept from the ice as far as possible.

Why I Chose the Brown Swiss

(*Continued from page* 54)

milk in one year, this being sold to a local creamery. Moreover, she had a three-year-old daughter that produced 15,154 pounds milk and another daughter milking in the two-year-old class that reached 62 pounds milk a day and 1,726 pounds in a month.

High Herd Average under Severe Conditions

The entire herd of milking cows averaged over 10,000 pounds milk. They had no silage. They slept outside even when the thermometer registered 40 degrees below zero. Such performances lead to a definite conclusion—that there were no "lemons" in this herd, is truly an accomplishment of a breeder, made posible by the strong characteristic of a breed to "produce and reproduce."

With a bunch of "just" cows on the home place, and being attracted by the Swiss, my father decided to give the Big Brown Breed a trial. Nine young females were purchased. Eight were of Beauty breeding. Two more were soon added. Last year the herd averaged 11,294 pounds milk and 560 pounds butter.

Jura Master's King was selected to head the herd. King was from a splendid high-testing two-year-old heifer whose two nearest dams average 16,353 pounds milk and 632 pounds butter-fat. Along with this production he has correct type. As a calf he finished the fair circuit without defeat, his victories being at the Iowa, Illinois and Wisconsin State Fairs, Waterloo, N. Y., and the National Dairy Show. Our Brown Swiss calves have been very pleasing. They have averaged 94 pounds when one day old, although mature cows usually drop calves weighing from 100 to 110 pounds. They gain from 40 to 48 pounds during their first mouth.

King's heifers are now of breeding age and are a very promising lot. They show highly developed udders and milk veins. Their top lines are of the kind that enabled their sire to carry off the blue ribbon in keen competition.—A. E. DEAN, Chautauqua County, N. Y.

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KOW KARE is sold by feed dealers, druggists, general stores; large size $1.25; medium size 65c. If your dealer is not supplied, we will send postpaid Our valuable book, "*The Home Cow Doctor.*" free.

Dairy Association Co., Inc., Lyndonville, Vt.

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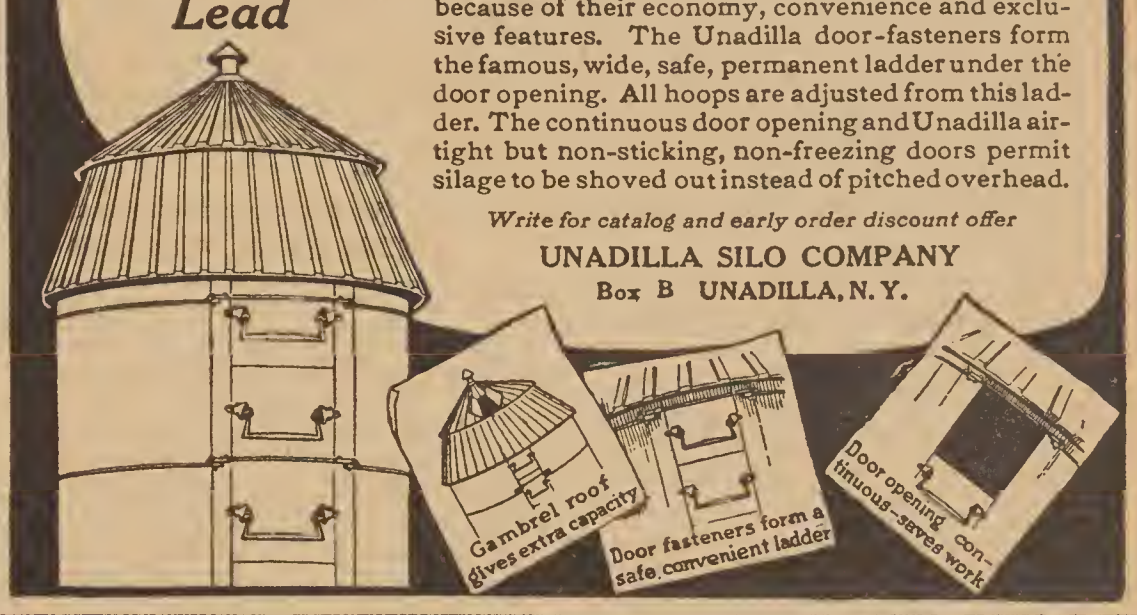

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CALIFORNIA STATE LANDS—The State Land Board of California has for sale 87 irrigated farms at Ballieo, near Merced, in San Joaquin Valley on main line Santa Fe Railway. The State makes it possible for you to own one of these farms, only requiring 5 per cent of purchase price, remainder in semi-annual installments extending over 36½ years with 5 per cent interest annually. Here is an opportuuity to become a home owner on terms as favorable as rentiug. It will be a long time before any more land will be available under such generous provisions. Money advanced on improvements and dairy stock. Those already located very enthusiastic; you can farm all year in California; all deciduous fruits profitably grown; alfalfa a paying crop. ideal conditions for stock and poultry; many persons long some day to make their homes in California, with its winterless climate, plenty of sunshine, seashore and mountains. fertile valleys, paved highways, very effieient marketing, excellent schools; State Board's pamphlet, also Santa Fe folder describing San Joaquin Valley mailed free on request. C. L. SEAGRAVES. General Colonization Agent. Santa Fe, 951 Railway Exchange, Chicago, Ills.

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THE OLIVIA SAGE SCHOOL OF PRACTICAL NURSING offers one year's course in special bedside nursing to limited number of women. Classes formed quarterly. Pupils receive maintenance, uniform and salary. Apply to DIRECTOR, NEW YORK INFIRMARY FOR WOMEN AND CHILDREN, 321 East 15th St., New York.

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WANTED—Middle-aged couple with no children, nor furniture to assist with general farm work, must be reliable and dependable. Goed position to right party. A. L. YATES, Whitney Point, N. Y.

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, Immediately.

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AGENTS WANTED—Agents make a dollar an hour. Sell Mendets, a patent patch for instant mending leaks in all utensils. Sample package free. COLLETTE MFG. CO., Dept. 140, Amsterdam, N. Y.

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SELECT CHESAPEAKE BAY OYSTERS. Yes Sir. I'm here again "with the goods"; SAY! They're GREAT—Fat, plump. Strictly fresh and delicious (melt in your mouth) O BOY! "Buy direct and save the difference." $2.50 gal. prepaid. Special price on 5 gal. lots. WM. LORD, Cambridge, Md.

WANTED—1,000 nice thrifty chestnut Poles 1½ to 2 inch at butt end. What can you furnish for quick cash. JOSEPH ROGERS, JR. & SON, Farmingdale, Mommouth Co., N. J.

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Make Certain It Is Safe

Financial Department:—What do you think of the Clarence Hodson Company, 135 Broadway, New York City, Beneficial Loan Bond? Would you think them a safe iuvestment?—(N. W., New York.

The main difficulty with the Beneficial Loan Bonds is their lack of a market which might be serious in case you needed sometime to realize on your investment. The business of the company is the making of small loans which so far has proved profitable but the return offered is so high that we cannot class the investment as conservative.

LOOKS REASONABLY GOOD; MAY LACK READY MARKET

Financial Department:—What is your opinion of the Berkshire Hills Paper Company (circular attached)? I would also like an opinion on the G. L. Miller Bond & Mortgage Co. of Miami, Fla.?—D. D. W., New York.

The Berkshire Hills Paper bonds, circular of which you enclose, look reasonably good although you must remember that a small local issue like this generally lacks a ready market. That may not be an objection in your case. As to the G. L. Miller bonds, it is very difficult to give advice regarding these real estate mortgage secured bonds and similar offerings. Except in the case where the mortgage certificate is guaranteed the security is always only the real estate on which the mortgage bond or mortgage certificate is a direct or collateral lien. Now, it must be obvious that some mortgages are better secured than others. Properly to appraise their investment status requires advice from a local real estate expert. It is, of course, helpful to consider the reputation of the issuing company. If it has a long record of successful loans its offerings may be regarded with more favor than if it is a comparatively newcomer in this field.

SUITABLE FOR THOSE ABLE TO TAKE RISKS

Financial Department:—I would like your advice whether the bonds of the Carbery & Reed Company are a safe investment? They are paying 10 per cent.—(M. A. S., New York.

We cannot undertake to recommend any bond coupon, rate of which is as high as 10 per cent. A corporation which has to borrow at this exorbitant interest not only handicaps itself but advertises its inability to get accomodation at the market rate. It is only fair to add that the company's balance sheet makes a good impression. Still it is not an investment suitable except for those able to take the risk.

LEAVE IT ALONE

Financial Department:—Will you kindly advise me if the Vogt Farm Meat Products Company of Royalton, Pa., with offices in the Berkeley Building, 106 N. Second Street, Harrisburg, Pa., is a safe investment and if they are doing any business?—H. L. L., Pennsylvania.

As far as we are able to find out, the Vogt Farm Meat Products Company has not begun production yet. We strongly advise you to leave the stock alone. At the best, in our opinion, it is a very doubtful speculation.

The Simplicity of Radio

And How to Make a Simple Crystal Set

This is the second of the radio series by Brainard Footc. Readers intcrested in radio should keep every issue of American Agriculturist on file, for there will be tlmes when instructions In making the radio will refer to past numbers. Unless you have these back numbers, you will be at a loss to understand what Mr. Foote is saying. This is also true with the construction diagrams. They are not only valuable for the diagram, but each early diagram carries the schematic symbols of the various parts of the radio.

FOR those situated within 20 miles of a broadcasting station, this is both a "How-to-make it" article and a discussion of the principles of radio receiving. Readers having no station within this distance should look upon it as theory alone, for receiving sets capable of covering greater distances differ from the simple outfit illustrated this week only in the type of detector used. No "crystal" set will reliably cover more than about 20 miles, despite far greater claims by some manufacturers, and for this reason the construction of a "crystal" set for longer distance is really wasted effort.

Radio impulses procede from the aerial of a broadcasting station in the form of waves. Sound waves are vibrations of the air, and therefore there can be no sound in a vacuum. Waves of light and of radio, however, pass through a vacuum without the slightest difficulty. Radio waves can also pass through the earth, through solid walls, and in fact can go almost anywhere. It is impossible to imagine a wave without picturing at the same time some substance or medium that is vibrating. Thus a water wave is a vibration of the water. A stone is dropped into a pond, and ripples spread forth in all directions.

The "Ether" Theory in Radio

Scientists have set up the "ether" theory to explain radio and light waves. The "ether" is an all-pervading medium or substance whose particles are so minute that they fill the "chinks" in all other known materials. When a man walks along the street the ether pours through his body as water pours through a sieve. The ether is conceived to fill the universe and to bring us the light from sun, moon and stars.

In summary, then, currents in the transmitting aerial are the "stone" which causes the "splash" in the ether "pond." The waves spread out in every direction, travelling 186,000 miles each second as in the case of waves of light, the waves being high at first, but gradually becoming smaller as the distance from the origin increases, The waves are definite in length, although their height varies according the strength of the current in the sending aerial. Wave lengths are measured in meters. When it is stated that a station's wave length is 360 meters, it means that from the top of one wave sent from that station to the top of the next wave measures exactly 360 meters, or about 1,300 feet.

Those who have dabbled in electricity know that an electric pressure is induced in a wire if a magnet is moved past it. The magnet is surrounded by its magnetic field, which makes itself evident by its pulling action on a piece of iron. Radio waves are similar to a magnetic field, although they are moving at a very rapid rate. As the wave snaps past the aerial wire of a receiving set it induces in the wire an electric pressure, first in one direction, and then in the other as the wave moves up and then down.

Comparing It to the Violin

A violin string is most useful here for purposes of comparison. The length of a radio wave is determined by characteristics of the sending aerial and internal apparatus connected with it, much the same as the pitch of a sound wave set up by a vibrating violin string is controlled by the string's physical properties. The violin string possesses inertia or resistance to change of motion due to its weight, and elasticity. The aerial system, which includes the aerial wires, the ground connections and any coils of wire intervening between the two, possesses similar characteristics. It has inductance, or inertia, and it has capacity, or elasticity. An aerial with a large amount of inductance and a large amount of capacity sets up a long wave length. Inductance is determined by the length and height of the aerial, while capacity depends upon the area of the aerial and its nearness to the earth. A single wire aerial, high up, is low in capacity, while an aerial with five or six wires, has a higher capacity, especially if it is near the ground.

It is common knowledge that a string on one violin will be brought into vibration if a string on another violin not far away is tuned to the same pitch and plucked or bowed. The sound waves from the second violin impinge upon the string in just the correct sympathetic recurrence until the second string is pushed and pulled into vibration in the same way that a boat on the ocean may be rocked by steadily recurring waves of water. Where the electrical conditions of the receiving aerial are in a similar state of "sympathy" with a passing radio wave, the aerial is set into electrical vibration and currents are induced in the aerial, changing direction rapidly in unison with the passing wave.

How the Radio is "Tuned"

Of course it would be very inconvenient were it necessary to change the size of the aerial every time one wanted to receive a different wave length. To obviate this difficulty, the aerial is made smaller than required, and a coil connected between the aerial and the ground. Fig. 1 shows a common method of accomplishing this. By moving the contact lever back and forth, more or less of the coil of wire is introduced into the aerial system, and various wave lengths may be picked up. Vary-

(*Continued on page* 59)

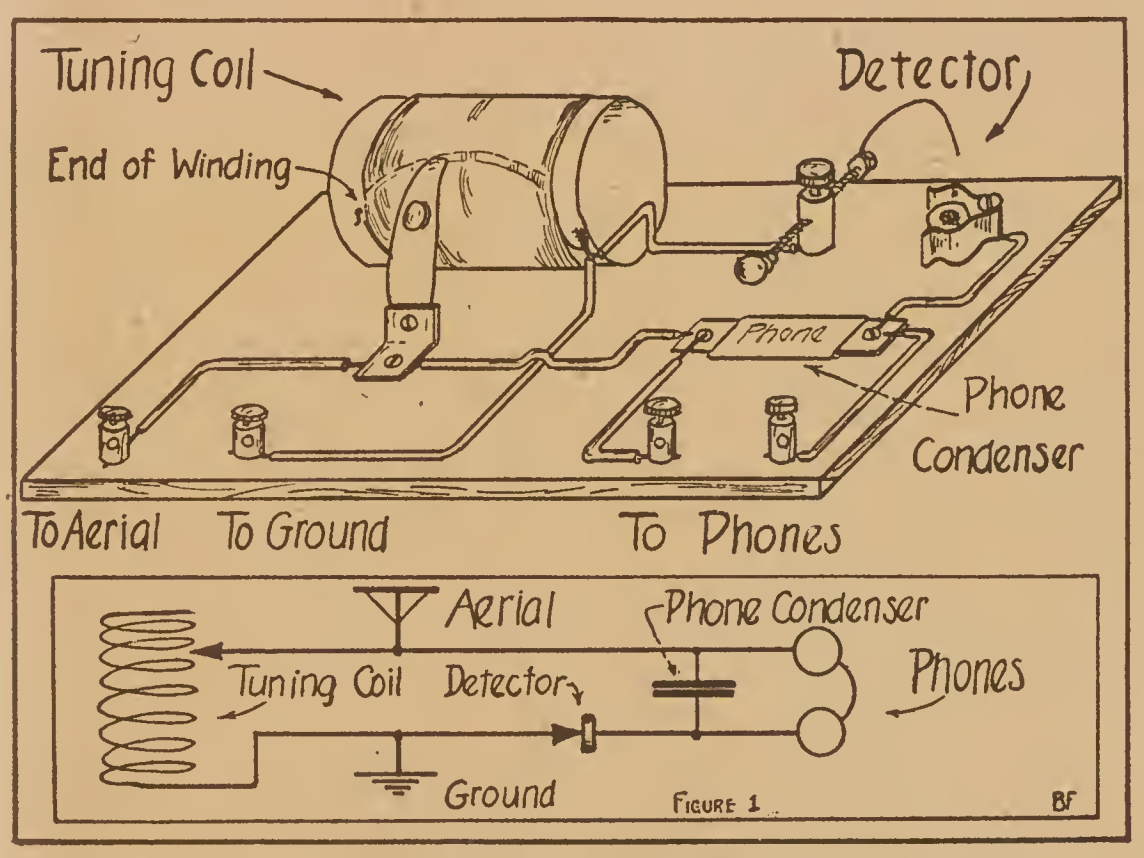

Diagram of Simple Crystal Set, Save this for Future Use

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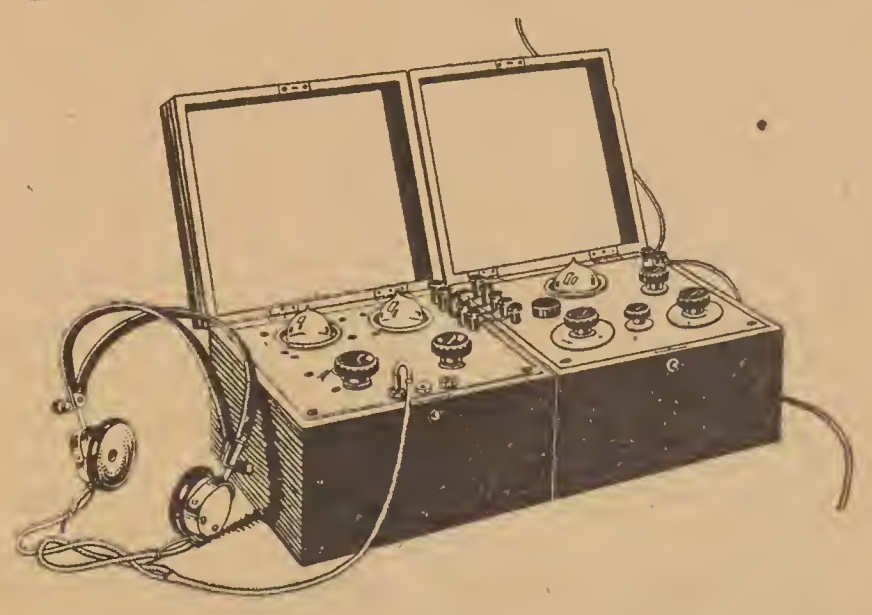

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(3) Ever-ready Dry Batteries (22½ volts)
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The Valley of the Giants—*By Peter B. Kyne*

BRYCE CARDIGAN, single-handed, almost bankrupt, his blind father, once king of the redwood country, now hopelessly discouraged, faces the unscrupulous Colonel Seth Pennington in a struggle for supremacy. The Valley of the Giants, where Bryce's mother lies buried, has been despoiled for a fine tree; Bryce avenges it by a fight with Rondeau, the Colonel's woods-boss, but Pennington, infuriated, set a crew of twenty upon him.

Shirley Sumner, the Colonel's niece, impetuously calls after Bryce to warn him, thereby breaking her vow, "I'll never speak to you again." Bryce escapes the ambush and reaches his own woods where he looks for McTavish, the old boss, now usually drunk. Moira McTavish seeks to protect her father.

SO delightful a picture did Moira McTavish make that Bryce forgot all his troubles. "By the gods, Moira," he declared earnestly, "you're a peach! When I saw you last, you were awkward and leggy, like a colt. And now you're the most ravishing young lady in seventeen counties. By jingo, Moira, you're a stunner and no mistake. Are you married?"

She shook her head, blushing pleasurably at his unpolished but sincere compliments.

"What? Not married. Why, what can be the matter with the eligible young fellows hereabouts?"

"There aren't any eligible young fellows hereabouts, Mr. Bryce. And I've lived in these woods all my life."

"That's why you haven't been discovered."

"And I don't intend to marry a lumberjack and continue to live in these woods," she went on, as if she found pleasure in announcing her rebellion. Despite her defiance, however, there was a note of resignation in her voice.

"You don't know a thing about it, Moira. Some bright day your *Prince Charming* will come by, riding the log-train."

"How do you know Mr. Bryce?"

He laughed. "I read about it in a book."

"Are you lonely, Moira?"

She nodded.

"Poor Moira!" he murmured absently.

The thought that he so readily understood touched her; a glint of tears was in her sad eyes. He saw them and placed his arm fraternally around her shoulders. "Tut-tut, Moira! Don't cry," he soothed her. "I understand perfectly, and of course we'll have to do something about it. You're too fine for this." With a sweep of his hand he indicated the camp. "Sit down on the steps, Moira, and we'll talk it over. I really called to see your father, but I guess I don't want to see him after all—if he's sick."

She looked at him bravely. "I didn't know you at first, Mr. Bryce. I fibbed. Father isn't sick. He's drunk."

"I thought so when I saw the loading-crew taking it easy at the log-landing. I'm terribly sorry."

"I loathe it—and I cannot leave it," she burst out vehemently. "I'm chained to my degradation. I dream dreams, and they'll never come true. I—I—oh, Mr. Bryce, I'm so unhappy."

"So am I," he retorted. "We all get our dose of it, you know, and just at present I'm having an extra helping, it seems. I'm sorry about your father. He's been with us a long time, and my father told me the other night that he has discharged Mac fourteen times during the past ten years, but to date he hasn't been able to make it stick. For all his sixty years, Moira, your confounded parent can still manhandle any man on the pay-roll, and as fast as Dad put in a new woods-boss old Mac drove him off the job."

"I know," said Moira wearily. "Nobody wants to be Cardigan's woods-boss and have to fight my father to hold his job. I realize what a nuisance he has become."

BRYCE chuckled. "I asked Father why he didn't stand pat and let Mac work for nothing. My father was under no obligation to pay him. Dad might have starved your father out, but the trouble was that old Mac would promise reform and end up by borrowing a couple of hundred dollars, and then Dad had to hire him to get it back! Of course the matter simmers down to this: Dad is so fond of your father that he just hasn't got the moral courage, and now the job is up to me. Moira, I'm not going to beat about the bush with you. They tell me your father is a hopeless inebriate."

"I'm afraid he is, Mr. Bryce."

"How long has he been drinking to excess?"

"About ten years, I think. Of course, he would always take a few drinks with the men around pay-day, but after Mother died, he began taking his drinks between. Then he took to going down to Sequoia on Saturday nights and coming back on the mad-train, the maddest of the lot. I suppose he was lonely, too. He didn't get real bad, however, till about two years ago."

"Just about the time my father's eyes began to fail and he ceased coming to jack Mac up? So he let the brakes go and started to coast, and now he's reached the bottom! I couldn't get him on the telephone to-day or yesterday. I suppose he was down in Arcata, liquoring up."

She nodded miserably.

"Well, we have to get logs to the mill, and we can't get them with old John Barleycorn for a woods-boss, Moira. So we're going to change woods-bosses, and the new one will not be driven off the job, because I'm going to stay up here a couple of weeks and break him in myself. By the way, is Mac ugly in his cups?"

"Thank God, no," she answered fervently. "Drunk or sober, he has never said an unkind word to me."

"But how do you manage to get money to clothe yourself? Sinclair tells me Mac needs every cent of his two hundred and fifty dollars a month to enjoy himself."

"I used to steal from him," the girl admitted. "Then I grew ashamed, and for the past six months I've been earning my own living. Mr. Sinclair gave me a job waiting on table in the camp dining room. You see, I couldn't leave my father. He had to have somebody to take care of him."

"Sinclair is a fuzzy old fool," Bryce declared with emphasis. "The idea of our woods-boss's daughter slinging hash to lumberjacks. Poor Moira!"

HE took one of her hands in his, noting the callous spots on the plump palm, the thick finger-joints that hinted so of toil. "Do you remember when I was a boy, Moira, how I used to come up to the logging-camps to hunt and fish? I always lived with the McTavishes then. Poor Moira! Why, we're old pals, and I'll be shot if I'm going to see you suffer."

She glanced at him shyly, with beaming eyes. "You haven't changed a bit, Mr. Bryce."

"Let's talk about you, Moira. You went to school in Sequoia, didn't you?"

"Yes I was graduated from the high school there. I used to ride the log-trains into town and back again."

"Good news! Listen, Moira. I'm going to fire your father, as I've said. I really ought to pension him, but I'll be hanged if we can afford pensions any more—particularly to keep a man in booze; so the best our old woods-boss gets from me is this shanty, and a perpetual meal-ticket for our camp dining room while the Cardigans remain in business."

"Perhaps," she suggested sadly, "you had better talk the matter over with him."

"No, I'd rather not. I'm fond of your father, Moira. He was a man when I saw him last—such a man as these woods will never see again—and I don't want to see him again until he's cold sober. I'll write him a letter. As for you, Moira, you're fired, too. I'll not have you waiting on table—not by a jugful! You're to come down to Sequoia and go to work in our office. We can use you on the books, helping Sinclair. I'll pay you a hundred dollars a month, Moira. Can you get along on that?"

Her hard hand closed over his tightly, but she did not speak.

"All right, Moira. It's a go, then. Hills and timber—timber and hills—and I'm going to set you free. Perhaps in Sequoia you'll find your *Prince Charming*. There, there, girl, don't cry. We Cardigans had twenty-five years of faithful service from Donald McTavish before he commenced slipping; after all, we owe him something, I think."

She drew his hand suddenly to her lips and kissed it; but her heart was too full for mere words.

"Fiddle-de-dee, Moira! Buck up," he protested, pleased, but embarrassed withal. "If you'll just cease shedding the scalding and listen to me, I'll tell you what I'll do. I'll advance you two months' salary for—well, you'll need a lot of clothes and things in Sequoia that you don't need here. Poor old Mac! I'm sorry I can't bear with him, but we simply have to have the logs, you know."

HE rose, stooped, and pinched her ear; for had he not known her since childhood, and had they not gathered huckleberries together in the long ago? She was sister to him—just another one of his problems—and nothing more. "Report on the job as soon as possible, Moira," he called to her from the gate. Then the gate banged behind him, and with a smile and a debonair wave of his hand, he was striding down the little camp street where the dogs and the children played in the dust. . .

After a while Moira walked to the gate and leaning upon it, looked down the street toward the log-landing where Bryce was ragging the laggard crew into something like their old-time speed. Presently the locomotive backed in and coupled to the log train, and when she saw Bryce leap aboard, seat himself on a top log in such a position that he could not fail to see her at the gate, she waved to him. He threw her a careless kiss, and the train pulled out.

When Moira lifted her Madonna glance to the frieze of timber on the skyline, there was a new glory in her eyes; for over that hill *Prince Charming* had come to her, and life was all crimson and gold!

When the train loaded with Cardigan logs stopped at the log-landing in Pennington's camp, the locomotive uncoupled and backed in on the siding for the purpose of kicking the caboose, in which Shirley and Colonel Pennington had ridden to the woods, out onto the main line again—where, owing to a slight downhill grade, the caboose, controlled by the brakeman, could coast gently forward and be hooked on to the end of the log-train for the return journey.

Throughout the afternoon Shirley, following the battle royal, had sat dismally in the caboose. She was prey to many conflicting emotions; but had to a great extent recovered her customary poise—and was busily speculating on the rapidity with which she could leave Sequoia and forget she had ever met Bryce Cardigan—when the log-train rumbled into the landing and the last of the long string of trucks came to a stop directly opposite the caboose.

SHIRLEY happened to be looking through the grimy window at that moment. On the top log, the object of her speculations was seated, apparently quite oblivious of the fact that he was back in the haunt of his enemies, although knowledge that the double-bitted axe he had so unceremoniously borrowed was driven deep into the log beside him, probably had much to do with Bryce's air of indifference. He was sitting with his elbows on his knees, his chin in his cupped hands, the while he stared moodily at his feet.

Shirley suspected she knew what he was thinking; he was less than six feet from her, and a morbid fascination moved her to remain at the window and watch the play of emotions over his strong, stern face. She told herself that should he show the slightest disposition to raise his head she would dodge away in time to escape his scrutiny.

She reckoned without the engine. With a smart bump it struck the caboose and shunted it briskly up the siding; at the impact Bryce raised his troubled glance just in time to see Shirley yielding to the shock, sway into full view at the window.

With difficulty he suppressed a grin. "I'll bet my soul she was peeking at me," he soliloquized. "Confound the luck! Another meeting this afternoon would be embarrassing." Tactfully he resumed his study of his feet, not even looking up when the caboose, after gaining the main track, slid gently down the slight grade and was coupled to the rear logging-truck. Out of the tail of his eye he caught a glimpse of Colonel Pennington passing alongside the log-train and entering the caboose; he heard the engineer shout to the brakeman—who had ridden down from the head of the train to unlock the siding switch and couple the caboose—to hurry up, lock the switch, and get back aboard the engine.

"Can't get this danged key to turn in the lock," the brakeman shouted presently. "Lock's rusty, and something's gone bust inside."

Minutes passed. Bryce's abstraction became real, for he had many matters to occupy his busy brain. Presently he was subconsciously aware that the train was moving gently forward; almost immediately, it seemed to him, the long string of trucks had gathered their customary speed; and then suddenly it dawned upon Bryce that the train had started without a single jerk—and that it was was gathering headway rapidly.

HE looked ahead—and his hair grew creepy at the roots. There was no locomotive attached to the train! It was running away down a two per cent grade, and because of the tremendous weight of the train, was gathering momentum at a fearful rate.

The reason for the runaway dawned on Bryce instantly. The road was, like most private logging-roads, neglected as to roadbed and rolling-stock; also it was undermanned, and the brakeman, who also acted as switchman, had failed to set the hand-brakes on the leading truck after the engineer had locked the air-brakes. As a result, during the five or six minutes required to "spot in" the caboose, and an extra minute or two lost while the brakeman struggled with the lock on the switch, the air had leaked away through the worn valves and rubber tubing, and the brakes had been released—so that the train, without warning, had quietly and almost noiselessly slid out of the log-landing and started on its mad career. Before the engineer could beat it to the other switch with the locomotive, run out on the main track, let the runaway gradually catch up with him and hold it—no matter how or what happened to him or his engine—the first logging-truck had cleared the switch and blocked pursuit. There was nothing to do now save watch the wild runaway and pray, for of all the mad runaways in a mad world, a loaded logging-train is by far the worst.

For an instant, Bryce Cardigan was tempted to jump and take his chance on a few broken bones, before the train could reach a greater speed. His next impulse was to run forward and set the hand-brake on the leading truck, but a glance showed him that even with the train standing still he could not hope to leap from truck to truck and land on the round, freshly peeled surface of the logs without slipping. And to slip now meant swift and horrible death.

Then he remembered. In the wildly rolling caboose Shirley Summer rode with her uncle, while less than two miles ahead, the track swung in a sharp curve high up the hillside above Mad River. Bryce knew the leading truck would never take that curve at high speed, but would shoot off at a tangent into the cañon, carrying trucks, logs, and caboose with it.

"The caboose must be cut out of this runaway," Bryce soliloquized, "and it must be cut out in a hurry. Here goes nothing in particular, and may God be good to my dear old man."

He jerked his axe out of the log, drove it deep into the top log toward

(*Continued on page* 59)

The Simplicity of Radio

(*Continued from page* 57)

ing the number of turns on the coil is known as "tuning" and means a change in the inductance of the aerial system.

Few Parts Need Be Published for Crystal Set

Few parts need be purchased for so simple an outfit as given in Figure 1. A half-pound coil of No. 20 enamelled magnet wire wil be sufficient for the coil. For connections and incidentals, a half-pound of No. 18 bell wire should be purchased. Then there are needed five binding posts, one small brass angle, a strip of brass about four inches long and an inch wide, two small rubber composition knobs with threaded bushings for an 8-32 screw and a cardboard tube about 3½ or 4 inches in diameter and 4 inches long. An oatmeal or salt box fills the bill exactly. Figure 1 is self-explanatory as regards the arrangement of the parts on a wooden base, and the connections. The insulation is removed where contact is made, as indicated. Two and one-half inches of the tube are wound tightly with the enamelled wire, securing each end in a small hole with one or two twists. The brass strip is cut in half lengthwise, and one strip is cut and bent to form the tuning arm and mounted in front of the coil. The latter is fastened down to the base with the aid of a wood screw and washer at each end. One rubber knob is mounted to form the handle of the tuning arm or "slider" and an arc traced upon the wire by the rounded end. Sandpaper is then brought to use in cleaning the surface of the wire so that the slider may make contact with one end to the other, care being taken to brush out small copper particles from between the turns.

Making the "Cat-Whisker" Detector

A spring clip for the crystal is bent from the other brass piece and held in place by a screw. A piece of the enamelled wire is scraped clean and sharpened at the end by a sidewise cut with a pair of shears to form the "cat-whisker" of the detector. Good mounted crystals may be purchased for 35 or 50 cents, and should be handled so that the fingers do not come in contact with the mineral itself. Natural oil from the hands soon destroys the sensitivity of a detector crystal, although it may be cleaned if necessary with wood alcohol and a clean cloth. The phone condenser appears in various forms, and any condenser stamped with a capacity of about .001 is suitable. A brass machine screw, 8-32 in size, is employed to support the cat-whisker, the other rubber knob screwed on as a handle.

Figure 2 shows the antenna, lead-in wire and ground. The lightning arrester is required, and may be mounted upon the window frame or on a board near the window. When this is properly installed and the set connected, the agent of the fire insurance company holding the policy on the house should be notified. He will then either inspect the installation himself or have it inspected, and a notation will be made upon the fire insurance policy granting permission for the radio outfit. There is no change in the premium rate when a radio is properly installed. Moreover, the antenna is in reality a true protection to the house, as much as lightning rods are a protection to the barn. Small static changes will leak off and may sometimes be heard crackling through the lightning arrester during a thunderstorm. This prevents the accumulation of a heavy and dangerous charge of electricity over the house.

Obtaining a Good Ground Connection

Sometimes it is difficult to obtain a good ground connection on a farm where the house is not piped. In that case, good results may be obtained in several ways. If there is a fairly long chicken wire or barbed wire fence near the house, the ground wire from the lightning arrester may be attached to this. Outside piping connected to the well is very satisfactory for this purpose. In the absence of any of these possibilities, a piece of insulated wire, about No. 14 or 16, and just as long as the aerial wire, may be run out directly under the aerial, lying directly on the ground. Where it is necessary to use an outside ground, an additional porcelain tube should be inserted to conduct the wire outside. If it is not desired to drill holes in the window frame, the tubing may be placed in a narrow board which will fit the window frame and upon which the sash may be closed. Some care is needed in the selection of the headphones. A pair of phones having fair sensitivity may be purchased for about $5.00. Since the phones will be used later on in better receiving equipment, however, it is wise to pay enough more to insure long life and maximum response. Therefore, it is well to pay about $8.00 for the telephone receivers. If there is no radio supply store nearby, recourse may be had to the mail order firms, practically all of whom carry reliable radio apparatus of every description.

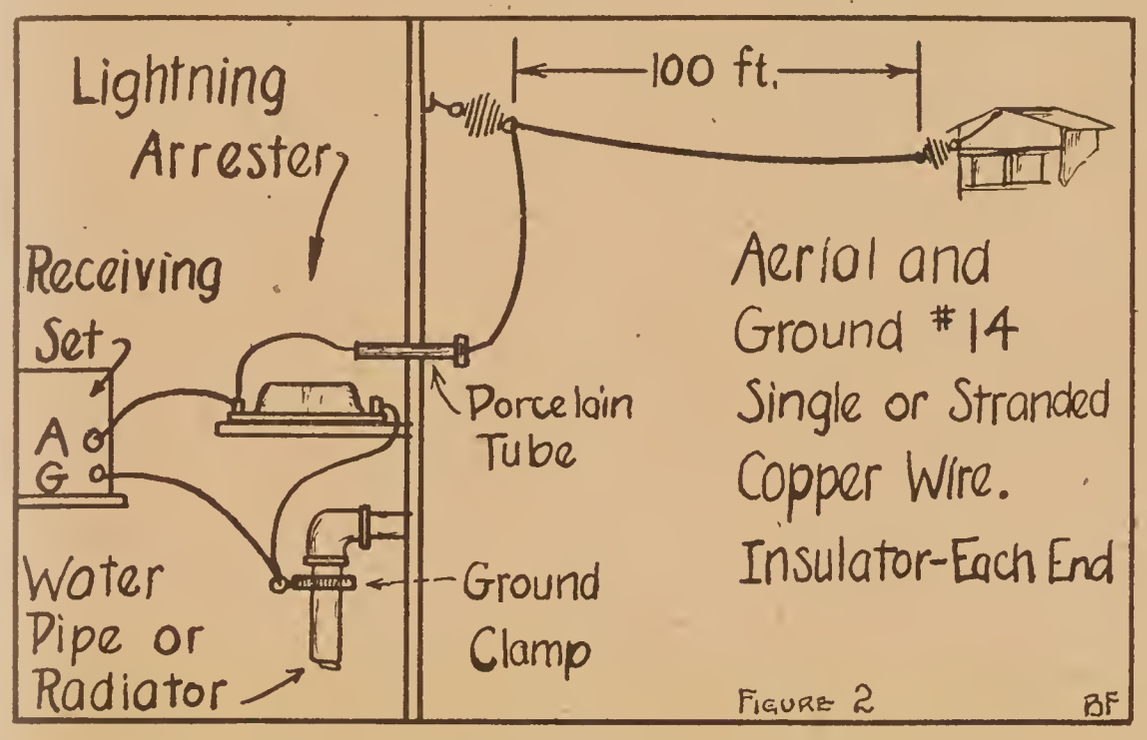

Diagram of Arrangement for Bringing Aerial Indoors

Interpreting the Schematic Diagram

Beneath the pictorial sketch is the schematic diagram as used in most radio "hook-ups." The beginner should commence at once to correlate the two forms of diagrams, comparing the actual instruments with their schematic symbols which will be used later on in

(*Continued on page* 63)

The Valley of the Giants

(*Continued from page* 58)

the end, and by using the haft to cling to, crawled toward the rear of the load and looked down at the caboose coupling. The top log was a sixteen-foot butt; the two bottom logs were eighteen footers. With a silent prayer of thanks to Providence, Bryce slid down to the landing thus formed. He was still five feet above the coupling, however; but by leaning over the swaying, bumping edge and swinging the axe with one hand, he managed to cut through the rubber hose on the air connection. "The blamed thing might hold and drag the caboose after I've pulled out the coupling-pin," he reflected. "And I can't afford to take chances now."

(*Continued next week*)

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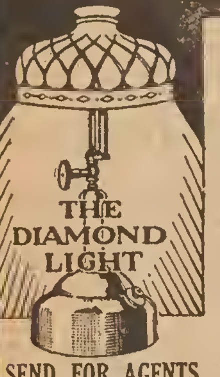

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Aunt Janet Talks of Good Resolutions

And Advises Her Nieces to Make the Sort They Can Keep

HAPPY New Year, nieces all! Aunt Janet has been hearing from many of you and writing to you too, but it's some time since she found a corner in these busy Household Pages from which she could speak to you all at once! New Year's however—a whole twelve months lying before us, waiting for us to make or mar—New Year's deserves a special letter.

I've been thinking a lot about it too, for just the other day a very dear little niece of mine, with a dear little home and a sheaf of babies that any one would be proud to cuddle, came dragging into my door with such a woe-begone look that I almost laughed—but of course that wouldn't have been polite. So I just put my arms around her and asked her what terrible calamity had happened.

"Oh Aunt Janet," she said, "It's just me." (I'm not responsible for her grammar—she was too discouraged to care!)

"Well," I said, "that's something off my mind. I thought at least that Jim had fallen into the well and the house had burned down with all the babies in it and the brand new airedale you got for Christmas!"

She laughed a little and assured me that the family was extremely well, especially considering the amount of Christmas candy that had gone down several little red lanes. Then she went off—or so it seemed—on a tangent.

"Aunt Janet," she said, "Do you believe in New Year's resolutions?"

Aunt Janet just waited and this is what she heard:

"I don't. You make them, and feel all right and happy inside and then you forget or break them—and it's so humiliating that you wish you'd never made any. They hurt lots more than they help—at least mine do. I feel so defeated and worthless when I don't keep one, that I give up in despair and don't even come as near to living up to it as I might have if I'd never set myself a definite goal."

"As for instance?"

"Oh, it's just a little one I made about housekeeping. You know, untidiness is my besetting sin. So I resolved this year I'd keep a tidy kitchen—and the rest of the house too—no matter what happened. Result—I've kept it a week; the kitchen's all right, but I've snapped Jim's head off twice and he looks so grieved and surprised; and I was cross with Anne-baby and she is such a lamb, and I hustled Jimmie Junior out of the front room and he hadn't really any other place to play, and my temper's edgey and—and—oh, I don't care now if the house *never* is orderly again if I can only have my family stop tip-toeing around with that awful scared look on their faces! But I can't break a resolution and feel that I've any real backbone, can I, Aunt Janet?"

It took a good deal of conforting and wheedling and a nip of salt in the shape of some good advice—to say nothing of two nice hot cups of tea—to send her away, her usual sunny self. But she finally trotted off quite cheerfully and left the impression that a special bit of baking was to be undertaken as a supper surprise. Even if she had to overlook some toys in the corner and even—yes—some unwashed dishes in the sink.

After my distressed little caller was gone, I looked into the fire for quite a while thinking about her question—does it pay to make good resolutions? We know we won't keep them—isn't it worse to make and break them, than never to make them at all? But finally I cast my vote in favor of the good resolutions.

What is a "Good" Resolution?

But there's one thing; that word *good*. First be sure your resolution is good, then go ahead. Not merely virtuous—a virtuous resolution can be very trying to others as well as to the person who makes them. By "good" I mean sensible, middle-of-the-road, keepable resolutions—with perhaps just the least bit of aspiration to them to stimulate without discouraging.

As I told my little neighbor, resolutions have two objects—one is the keeping of the resolution itself, the other is the effect of the discipline upon its author. If you make a resolution so hard to keep, that it destroys your temper and makes those around you miserable too, it's not a very good resolution. If, on the other hand, it's too easy to keep, you gain none of the real discipline which you meant to give yourself.

I remember reading about some famous English author (De Quincy, I think, though memories are undependable things) who told how, as a boy, he would run down a London street touching every paling of a fence as he ran. If he missed one and went on to the next street, he was filled with such a mute sense of defeat that he would finally have to go back and touch the one he had missed before he could absolve himself.

It is this silent judge within us, who, when resolutions are broken, is often so severe that, as my little friend said, it hurts us worse to make and break a resolution than never to make one at all. When we skip a paling in the fence we must pull up and go back, or hear him remind us all the rest of the day.

So in resolution making, don't set yourself the impossible. Don't say, "My house shall *always* be tidy," but say "I'll do my level best to keep my house tidy." Then, if you shirk, that inner voice will say "How about your 'level best?'" While if you honestly are too tired to do some extra bit of cleaning, or cannot do it and still find time to run over to your sick neighbor's with a newly-made custard, you'll find your silent judge willing to admit that in slackening up a bit you may have "chosen the better thing."

New Year's resolutions like that can be kept from the first day to the last and the maker of the resolve will be better for having made and kept it. How about it, nieces and cousins and all the big family? Which resolutions, made last year did you keep; which did you break? And what one resolution has helped you the most of all you have ever made? Write Aunt Janet and tell her some of your experiences with this matter of once-a-year resolving, and whether you think it does or doesn't pay. I'll look forward to hearing your opinions.

Always your

Aunt Janet

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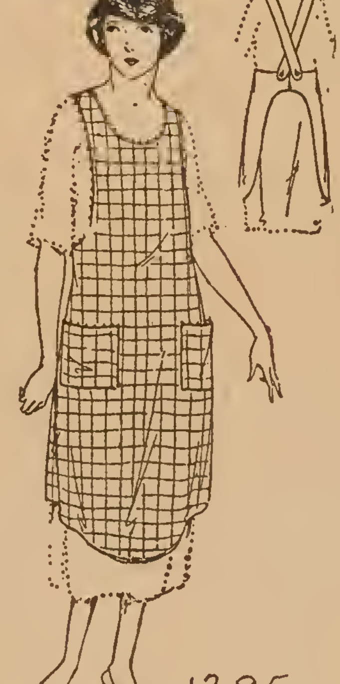
JANUARY IS THE MONTH FOR HOME SEWING

THE five patterns chosen this week by the Fashion Editor cover almost all the needs of the mid-winter sewing season. There is a housedress and an afternoon frock. There is also a school dress for the girl, and a smart little suit for the boy.

If you want help on any of your dressmaking questions, write the Fashion Editor about it, inclosing a stamped self-addressed envelope. She will be very glad to answer you promptly and may be able to suggest some solution which had not occurred to you.



1295

1143

No. 1295 (above) one-piece apron with straps buttoning at the back. **No. 1295** cuts in sizes 36, 40, 44 and 48 inches bust measure. Size 36 requires 2 yards 36-inch material.

(Below) **No. 1271.** Boy's suspender suit with separate waist. **No. 1271** cuts in sizes 2, 4, and 6 years. Size 4 requires ¾ yards 36-inch material for trousers and 1 yard 36-inch material with 2¼ yards pleating for waist.

1351

(Above) **No. 1143.** Girl's school dress, jumper style with guimpe. **No. 1143** cuts in sizes 4, 6, 8, 10, 12 and 14 years. Size 8 requires 1⅞ yards and ¼ yard 36-inch material contrasting for dress, and 1¼ yards 36-inch material for guimpe.

(Below) **No. 1546,** one-piece afternoon frock. **No. 1546** cuts in sizes 16 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 3 yards 36-inch material.

1271

No. 1351. A serviceable housedress with long or short sleeves. No. 1351 cuts in sizes 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 3⅝ yards 36-inch material with ½ yard 36-inch contrasting.

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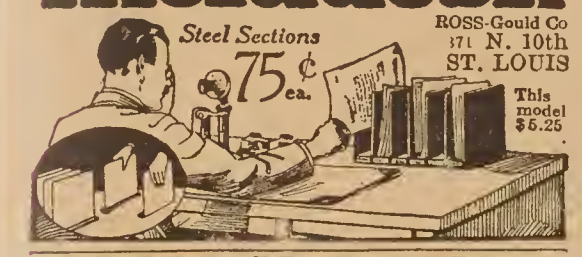

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Using a Fireless Cooker

Ada Carroll Wortman Tells Best Methods

THE fireless cooker has a firm place in the affections of the farm woman who aims to be not only a good housekeeper, but to plan her work so efficiently that she also has leisure for other things. This invention has done much to banish the "all-worn-out" woman who is a slave to the kitchen stove. While the necessity for saving fuel is not so urgent as in the city, economy of time and labor means much on the farm.

Bread sponge, mixed at night and set in the cooker, will hold the temperature at which it is placed in the box, and in the morning will be light as can be, thereby making the mixing of the bread a task which can be done the first thing after rising.

The cereal for the morning meal may be boiled on the stove for five minutes in the evening, then set in the cooker. In the morning it will be just hot enough to taste good. If the cooker has two wells, or if the family is small, the coffee also may be made at night, drained from the dregs, and put into the cooker. It makes a quick breakfast to have coffee and cereal all ready before the fire is built in the range. All that will be needed in addition will be to cook eggs, or bacon, or toast, or griddle cakes, and breakfast is ready.

Spareribs, a roast of beef, a meat loaf, or a chicken will be done to a turn in the cooker in three hours, with no danger of scorching, or need of basting. The cooker must have disks of iron or soapstone in order to do roasting or baking, but all the modern cookers have. Brown bread, baked in pound coffee cans, bakes better in the cooker than in the oven. Heat the disks until they snap when a wet finger is applied, put one in the bottom of the cooker, and the cans of bread above, then lay the other disk over the cans, and in two hours your bread will be well done.

Stews of all kinds and legumes are better cooked in the fireless cooker than in any other way. If you have a rack which will protect pies, they also may be baked in the cooker. Set the pie on the heated lower stone, place the rack above the hot upper stone, and you will be surprised to see how delicately fine the texture of the crust will be, while the filling will be done, without boiling over.

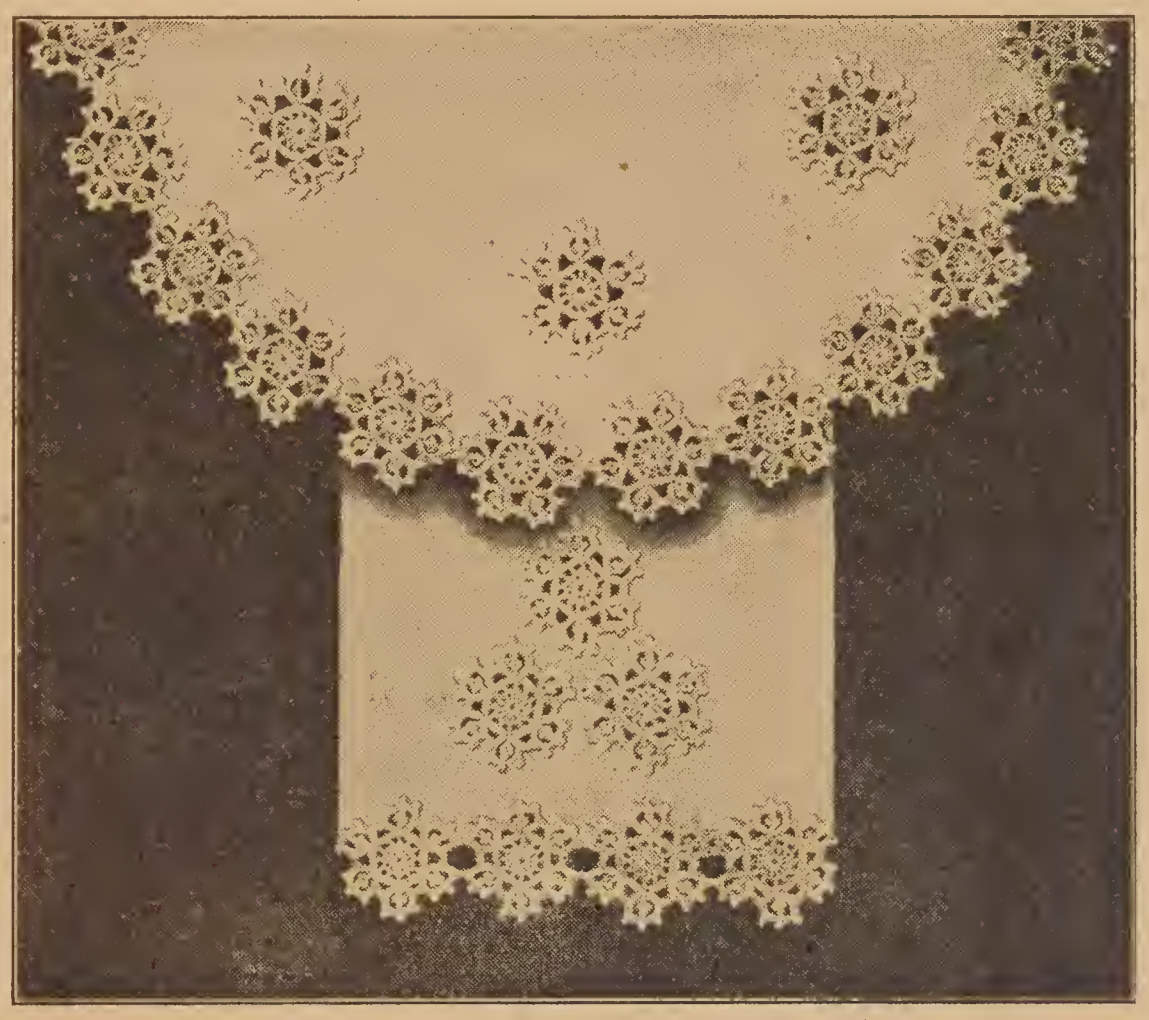
Anything that can be cooked in the oven or boiled on the top of the range may be cooked in the cooker. Frying is not so successfully done, although it may be done with proper care. The good cook uses fried foods sparingly, and it is better to fry on the top of the stove if at all.

As you use the cooker, you will find more ways to utilize the principle on which it operates. Ice cream may be placed in the cold well, and it will remain frozen for many hours. Whether hot or cold, anything placed in the cooker maintains the same temperature for from three to six hours.

Although a fireless cooker can be made at home, you must have the right disks to use. These can be obtained from mail order houses, and two are needed for each well.

A USEFUL LACE MOTIF

As soon as Christmas is over, the prudent housewife turns to the business of replenishing her own stock and getting her linen into good condition. The lace motif shown in the picture has a dozen uses. It is smart for pillow-slips, towels, centerpieces, curtains and for clothing; it may be worked in fine linen thread or in a coarse material for large articles. The whirls may be made individually and used as inserts, or connected to form an edging.



A Pretty Lace Motif for Insertion or Edging

A centerpiece and the end of a long table runner are shown in the picture.

Directions for making this lace will be sent upon receipt of 10 cents in stamps. Address your order to Handicraft Department and ask for E 6.

To Banish Onion Odor

An experienced cook says that if you put vinegar in a pan at the same time onions are cooked the odor will not be noticed in the kitchen while the onions are cooking. This might be worth trying with cabbage, too, as either of these odors prevent many onions and cabbage being cooked that otherwise would be added to regular meals.

When Driving a Nail into a plastered wall, first place the nail in hot water until thoroughly heated. You can then drive it in without breaking or chipping any of the surrounding plaster.—(Mrs. J. T., Massachusetts.

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Reviewing the Latest Eastern Markets and Prices

INDICATIONS ARE THAT FEED PRICES WILL NOT GO LOWER

AN official of one of the largest milling companies in the country stated this week in private conversation with the editor of this page that he saw no prospect for any lower prices on mixed feeds or protein concentrates in the next two months. The number of cattle on feed in the country now has increased about 27 per cent. The cotton crop is not over 50 per cent normal, and demand for cottonseed meal has increased, especially for use as fertilizer. Flax-seed production decreased this year and has been decreasing for several years.

The gluten supply is short, as production has been decreased. Distillers' grains are difficult to obtain. So, according to this official, there is a limited supply of protein ingredients, which is likely to result in holding up the price on such commodities during the remainder of the heavy-feeding season.

Greenings Still Dominate Apple Market

Western New York and Hudson Valley apples, consisting chiefly of Greenings, have been moving to the New York market in liberal quantity, which, together with heavy arrivals of Western boxed apples, contributed to a generally dull market. Barrelled fancy red varieties, well colored, have been scarce. Good stock at Eastern markets has been in moderate demand, but ordinary sorts sold slowly in mid-January. As reported by the New York State Department of Farms and Markets, the total carlot shipment of apples this season to January 10 amountedto 81,214, as compared with 73,230 last year.

The following table shows the sale price per barrel at New York City in mid-January:

VARIETY	Best	Fancy	Ordinary
Greening..	$4 @4.25	$4.50@4.75	$3.50@3.75
Baldwin..	4.50@4.75	5	4 @4.25
N. Spy....	6.50@7	7.25@7.50	5 @6
McIntosh..	8 @8.25	8.50@9	6.50@7
Ben Davis.	3 @3.25	@3.50	2.50@2.75

At Rochester, N. Y., A grade 2½-inch Baldwins sold f. o. b. at $4 to $4.50 per barrel.

Some activity was noticed in the British apple market. At Liverpool, Greenings went at $4.90 per barrel, Ben Davis, $5.25 to $6.28.

Receipts of pears were comparatively light from the Hudson Valley and Western New York; demand also light, only very best grades moving at encouraging prices. Kieffers were the largest barreled offerings; even best stock moved at $3 to $3.50 per barrel, with very few sales reported as high as $4.

Potato Buyers Continue to Be Cautious

The expected turn for the better on potatoes had not taken place by mid-January, country and city prices for the most part remaining irregular at former levels. The f. o. b. loading prices at up-State points for Green Mountain and similar varieties averaged close to 45 cents per bushel; some turn-over at 40 cents. These same potatoes wholesaled at New York City receiving terminals at $1.15 to $1.25 bulk in heated cars. The latter figure was secured only on frost-free, clean, attractive stock.

Long Island shipping points reported most sales at 90 to 96 cents per bushel f. o. b., or $2.70 to $2.90 per 180-pound sack. As laid down in New York City, this stock went at $3.50 to $3.65 per sack, full weight. In mid-January there was gossip among traders which indicated a better feeling, perhaps due to the belief that weather conditions would be more normal for the season and the winter trade would begin in earnest.

With few arrivals of white cabbage from up-State producing sections, the market ruled stronger for fancy stock; prices unchanged. Old-crop white cabbage was dull. Total shipments of both old and new-crop shipments to date are a fifth heavier than last year. White Danish, best, sold at New York at $25 to $26 per ton, bulk; fancy, in a small way, $28 to $30. Red Danish went at $45 to $50.

Mid-January saw little change in the onion market. Best No. 1 yelow onions from New York State brought $2.50 to $2.60 per 100-pound sack; occasional sales on fancy up to $2.65 to $2.70, ordinary $2 to $2.50.

Butter Recovers on Firm Market

The butter market at New York nearly recovered the several cents drop which it experienced at the opening of the year; market firm. In fact, under moderate receipts even first and second grades worked out under a good demand. Highest score creamery salted butter sold at 54½ @ 55c per pound; extra 92-score, 53½ @ 54c; firsts to extra firsts, 47½ @ 53c; finest New York State dairy butter, salted, fine to fancy, 42 @ 51c; good to prime, 35 @ 41c; common to fair, 27 @ 34c. New arrivals of Danish butter still offer competition, arrivals of something over 5,000 casks going into the jobbing trade in mid-January.

The cheese market was firm, despite quiet tradings, particularly on fancy sorts, prices fractionally higher than earlier in the month. New York State whole-milk, held, flats, colored or white, sold at 28¾c per pound; average run, 27½ @ 28c; daisies, 27½ @ 28¼c; twins, 27½ @ 28¼c; Young America, 28 @ 28½c; New York State skims brought 21 @ 21½c; fancy Swiss cheese, 34 @ 35c.

Eggs Working Lower

Although not in direct competition, heavy arrivals of Pacific Coast eggs were to the disadvantage of nearby white and brown, the market continuing to work lower, but not as sharply as the first week in January, when the drop was as much as 5 to 7 cents per dozen on very best nearby henneries, and more on the firsts and lower grades. Buyers are cautious, anticipating fairly heavy arrivals of nearby grades, due to mild weather; prices correspondingly irregular.

Nearby hennery whites in new cases, flats and fillers, extra fancy, sold at 58 @ 60c per dozen; nearby hennery whites in other than new cases, extra fancy, 55 @57c. Brown eggs in corresponding grades ruled at 2 to 3 cents per dozen lower. Fancy New Jersey hennery white sold at 58 @ 60c per dozen.

Poultry in Fair Demand

Arrivals at New York of live poultry by freight were heavy in mid-January; express receipts light. Heavy, fat fowls and chickens met a reasonably good demand. Heavy colored fowls, plump, sold at 26 @ 29c per pound; Leghorns, light weights, 20 @ 22c; chickens, colored or white, 21 @ 22c; roosters, 13c.

Supplies of nearby New York State dressed poultry were fairly liberal and moved slowly. By the barrel, dry-picked fowls, five pounds and over, brought 29 @ 30c; four pounds, 28c; 3½ pounds, 22 @ 26c; scalded fowls, heavy, 23 @ 24c; roasting chickens, dry picked, four to six pounds and over, 34 @ 36c; 3½ pounds and under, 24 @ 30c.

Hay Market Dull, Alfalfa Steady

Market continued dull. Prices in mid-January were $1 per ton less than in previous week. Basing quotations on the new U. S. grades, as quoted in detail in these columns in the issue of January 13, the following are the mid-January prices: U. S. timothy No. 1, $25 per ton; No. 2, $23; No. 3, $21 @ 22. U. S. light clover mixed, No. 1, $23 @ 24; No. 2, $22 @ 23; No. 3, $21 @ 22. U. S. medium clover, mixed, No. 1, $24; No. 2, $22 @ 23; No. 3, $21 @ 22. U. S. heavy clover, mixed, No. 1, $21 @ 23; No. 2, $18 @ 20. Light grass, mixed, $24 @ 25; heavy grass, mixed, $19 @ 22; heavy clover, mixed, $21 @ 22.

Alfalfa sold fairly steady, No. 1 second cutting bringing at New York $27 @ 29 per ton; No. 2, $24 @ 26. Oats straw sold at $16 @ 17; rye straw, $24 @ 25.

Country Meats and Live Stock

Receipts of country dressed calves continue light, market reasonably firm under fairly active trade. Fresh, choice calves brought 20c per pound; prime, 18 @ 19c; good, 16 @ 17c; poorer sorts, 12 @ 15c. Country-dressed pigs were in light receipt, but demand slow. White skinned roasting sorts, weighing 10 to 15 pounds, brought 25 @ 30c per pound; 16 to 40 pounds, 20 @ 23c; 40 to 60 pounds, 15 @ 18c; heavier weights down to 10c. Hot-house spring lambs moved slowly, with fancy at $10 @ 12 each.

At New York, good to choice steers sold at $9.25 @ 10.10 per 100 pounds; ordinary to choice bulls, $4.90 @ 6.50; common to choice cows, $4.75 @ 5.15. Common to prime ewes brought $4.50 @ 7.50; yearlings, $8 @ 12. Medium to lightweight hogs and pigs sold at $9.60 @ 9.75; heavy hogs, $9 @ 9.25.

Little Change in Feed and Grain

Buffalo market continued steady in mid-January, with practicaly no change in prices. Carlots f. o. b. Buffalo, per 100-pound sack, sold as follows: Gluten feed, $46.25 @ 47 per ton; cottonseed meal, 36 per cent protein, $49 @ 49.50; cottonseed meal, 43 per cent, $54.25 @ 54.75; oil meal, 33 to 34 per cent, local billed, $54 @ 54.50; dried brewers' grains, $49 @ 50; standard spring bran, $32.05 @ 32.55; hard winter bran, $33 @ 33.50; standard spring middlings, $31.30 @ 31.80; No. 2 yellow corn, new, 82c per bushel; No. 3, 81c; new white oats, No. 2, 50c; No. 3, 48c.

Eastern grain markets registered lttle change during the week ending January 13. At New York, cash quotations were: No. 2 red wheat, for export, $1.34 per bushel; No. 2 hard winter, $1.34½; No. 2 mixed Durham, $1.21; No. 2 yellow corn, 90¾; No. 2 mixed, 90¼c; No. 2 white corn, 90¾c; No. 2 white oats, 50 @ 55½c; No. 3 white, 53 @ 54½c; rye for export, $1.02; barley for malting, 81 @ 83c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold in the week ending January 13:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
Hennery, whites, extra fancy	58@60	......	......
Extra first	53@55	51@52	47
Firsts	50@52	......	45
Gathered, whites, first to extra firsts	50@54	......	......
Lower grades	45@49	......	......
Hennery browns, extra fancy	52@54	......	......
Gathered browns and mixed colors, extra fancy	45@51	49@50	......
Extra first	......	......	......
Pullets	42@48	46@48	......
Butter (cents per pound)			
Creamery (salted) high score	......	......	......
Extra (92 score)	53½@54	54@55	55
State dairy (salted), fine to fancy	42 @51	51@52	......
Good to prime	35 @41	43@50	......
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$23@24	$19@20	$21 @22
Timothy No. 3	21@22	......	18 @20
U. S. Sample	15@18	......	......
Fancy light clover mixed	22@24	......	20 @21
Oat straw No. 1	......	......	12.50@13
Rye straw No. 1	......	......	......
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	26@29	25@26	28@30
Fowls, leghorns, fancy, heavy	20@22	17@21	20@24
Chickens, colored, fancy, heavy	21@22	24@25	27@28
Roosters	13	17@18	17@18
Live Stock (cents per pound)			
Calves, good to medium	9 @15½	14½	......
Bulls, common to good	5 @ 6½	3½@ 5½	......
Lambs, common to good	12½@16	7 @15½	......
Sheep, common to good ewes	4½@ 7½	8½	......
Hogs, Yorkers	9½@ 9¾	9¼@ 9½	......

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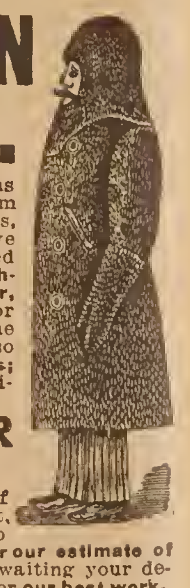

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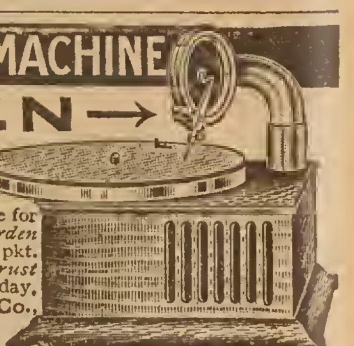

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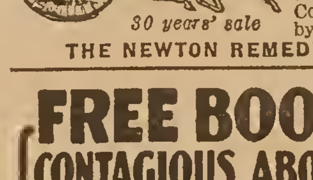

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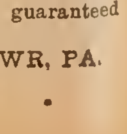

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The Sow That Is to Farrow

KEEP the sow that is to farrow out of the fattening pen. Corn is not the best ration for the brood sow. She may get fat, but her offspring are liable to be weak and she is apt to overlay them at farrowing time. A fat sow is generally lazy and inactive, so when she overlays a pig and it squeals she will be too lifeless to get up and release it.

What the sow needs is a very small ration of corn and plenty of slops and green food. A small grass lot is an ideal place for a brood sow. She gets plenty of green foods and catches the slops from the kitchen. I like to mix some bran and shorts with her slop.

The sow that is about to farrow should be kept exclusively to herself night and day. Other hogs are liable to overlay and injure her on cold nights. If a horse, mule or cow is allowed in her run, she may be kicked or tramped upon and severely injured. She also needs a good shelter even in the summer time. She needs protection from the hot sun, the chilling rains or the pelting hail that may fall. A farrowing house will afford her the shelter she needs. An improvised one may be made of boards and covered with straw if nothing better can be afforded.

She also needs a good bedding of leaves or straw that will be a good protection for her young when nights are damp and cold.

Another point, the sow that is nearing farrowing time should not be allowed to drag herself over high places. Get all rails or boards out of her way so that she may have easy access to her sleeping quarters. Then she will not bruise herself or run any risk of a miscarriage.

After the sow has farrowed, she need not be fed until she appears hungry. Heavy feeding at farrowing time is liable to produce fever and result in the loss of the sow. Feed lightly at first. A very little corn and some slop is all she needs. She will need plenty of succulent foods as the days go by, and the owner should make it a point to supply these. He will be rewarded by a strong, healthy bunch of pigs that will develop into hogs very rapidly.—W. D. NEALE.

The Simplicity of Radio

(*Continued from page* 59)

complicated circuits for longer distance receiving. As has been pointed out above, the tuning coil with its slider tunes the aerial system to the various wave lengths. The detecting circuit is composed of the phone condenser and the crystal detector. The latter has the unique property of permitting current to flow more easily in one direction than in the other. The current in the aerial is reversing its direction very rapidly, and for this reason only one half of the waves are permitted to push current through the crystal. The magnets of the telephone receivers are wound with very fine wire which obstructs the passage of the rapidly alternating current by its high resistance. The electricity therefore cannot pass the phones, and it "piles up" in the phone condenser. After the electrical "charge" in the condenser is strong enough it discharges into the telephone receivers and causes the diaphragms to vibrate in unison with the variation of the wave radiated from a sending aerial. This variation may be in the form of short and long buzzes to form the code, or it may be modulated by the human voice.

The operation of the crystal set is simple. The contact arm is set at about the middle of the coil and the cat whisker brought down upon the crystal with a light pressure. One must feel around a little for the sensitive spot as the slider is moved slowly back and forth, the correct pressure varying with individual crystals.

For city locations, where there may be interference from commercial or amateur code stations, or perhaps from a multiplicity of broadcasting stations, there is an improvement in the nature of an additional coil, which may be added to the set of Figure 1 with but a slight change in the wiring. A discussion of this refinement, together with sketches of the connections, will appear in next week's issue.—BRAINARD FOOTE.

BABY CHICKS BABY CHICKS

HILLPOT QUALITY CHICKS From Day-Old to Chicken Quickly
For quick meat, early eggs and permanent satisfaction chicks of Hillpot Quality are unsurpassed. They waste no time growing, for they are gifted with the right start. Their pep and purpose can have but one result—YOUR PROFIT.
LEGHORNS, REDS, ROCKS, WYANDOTTES
Free 1923 Catalogue Write for it today. Full of interesting chick facts and profitable poultry hints. Shows how we ship our chicks 1200 miles and guarantee safe delivery of full count.
W. F. HILLPOT, Box 29, Frenchtown, N. J.
Member International Baby Chick Association
Life Member American Poultry Association

BUY HUBER'S RELIABLE CHICKS
Our 14th Year 1,000,000 For 1923
By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.
HUBER'S RELIABLE HATCHERY North High St., FOSTORIA, OHIO

CERTIFIED CHICKS GUARANTEED. From Hogan tested, free range stock. Our plant is modern 65 acre poultry farm. Ten years careful breeding for heavy egg production. Winners at leading shows. Big, strong, vigorous well-hatched Chicks at following prices: White and Brown Leghorns, Certified, 50, $8.50; 100, $16; 500, $77.50. Anconas, Certified, 50, $9; 100, $17; 500, $82.50. White and Brown Leghorns, Select, 50, $7; 100, $13.50; 500, $65; Anconas, Select, 50, $7.50; 100, $14.50; 500, $70. Postpaid to your door and 100 per cent. live delivery guaranteed. Order direct from this ad early and get them when you want them. Also breeding stock and special mating Chicks.
GET OUR CATALOG Bank Reference
TOWNLINE POULTRY FARM Box 28 ZEELAND, MICHIGAN
We are only 20 hours from New York City.

CHICKS—$11 per 100 and up POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

Varieties	Prices on . . . 50	100	300	500
Buff & White Wyandottes & Buff Rocks	$9	$16	$47	$78
Barred Rocks, R. & S. C. Reds, Anconas	$8	$15	$43	$72
White, Brown & Buff Leghorns	$7	$13	$38	$63
Assorted, Mixed, all varieties	$11 per 100 straight.			

Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW. DIRECT FROM THIS AD. and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free.
KIRKERSVILLE HATCHERY Box D KIRKERSVILLE, OHIO

Egg Bred White Leghorn CHICKS
Double your poultry profits with our Famous Improved Winter Egg Basket Strain of S. C. White Leghorns. They are the selected, long, deep-bodied typical hens with large lopped combs, mated to the famous Hollywood and Beall 250-300 EGG Pedigreed sires. All our breeders are culled, selected, and mated by poultry specialists and inspected and approved as to their laying ability and health.
Our Leghorns are winners at LEADING Egg Laying Contests and Poultry Shows. Thousands of customers all over the U.S. are reaping a golden harvest of eggs the year round from our egg bred layers. You, too, can make big money with them.
FREE Valuable Catalog tells all about EGG FARMING FOR PROFIT and What and How to feed for results. Worth many dollars to you. Get our prices on chicks and eggs before you buy. Write AT ONCE.
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RURAL CHICKS
from MICHIGAN CERTIFIED S. C. ENGLISH STRAIN. White Leghorns, Brown Leghorns, and Anconas. BUY DIRECT from our large rural poultry institution and save money. LIBERAL DISCOUNT allowed on all orders booked now. ACT QUICKLY! Ask for our free valuable catalogue and attractive prices. Our chicks are shipped postpaid and we guarantee satisfaction and 100% live delivery.
RURAL POULTRY FARM & HATCHERY
Zeeland R No. 1 Dept. A Michigan

400,000 CHICKS
Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.
MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

HIGHEST QUALITY BABY CHICKS
Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
S. C. White, Brown, Buff Leghorns	$15	$72	$140
Barred Rocks, R. I. Reds, Anconas	$18	$85	$160
White Rocks, Blk. Minoreas	$20	$95	$180

All chicks sent by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. 10% books order any week after Feb. 1.
SHERIDAN POULTRY FARMS SHERIDAN, PA.

1923 Chicks Wh., Br., and Buff Leghorns. 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.
Globe Hatchery, Box 57 Berne, Ind.

BABY CHICKS--Quality Hatched
S. C. White Leghorns; R. C. Rhode Island Reds; Barred, White and Buff Plymouth Rocks. 100% live delivery. Free pricelist.
MIDVALE POULTRY FARM Strawberry Ridge, Pa.

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Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

KERLIN QUALITY
ENGLISH-AMERICAN S. C. WHITE LEGHORNS
CHICKS from 265-270 Egg Strain stock and PEDIGREED STOCK FROM 280 TO OVER 300-EGG HENS. POSTPAID.
Free Feed with each order. One hundred per cent. Safe Arrival Guaranteed. A Special Discount of $3 per 100 Chix on orders placed promptly. Book of valuable information to poultry raisers FREE for the asking. We WANT you to have it. Drop us a card right now before you forget it and let us tell you more about this truly wonderful strain of layers.
Member International Baby Chick Association
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BOX 35 CENTER HALL, PA.
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CHICKS Husky livable chaps. Egg machines from high laying, pure farm bred stock. Specialists in S. C. W. Leghorns, R. I. Reds. B. P. Rocks. Sent postpaid. 100% live delivery guaranteed. Eggs and Breeding stock. Illustrated circular "ALL THAT IS NEW IN POULTRY" FREE.
GALEN FARMS, Box 200, Clyde, New York

BABY CHICKS
From 200-Egg Hens
Chicks from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.
Glen Rock Nursery & Stock Farm
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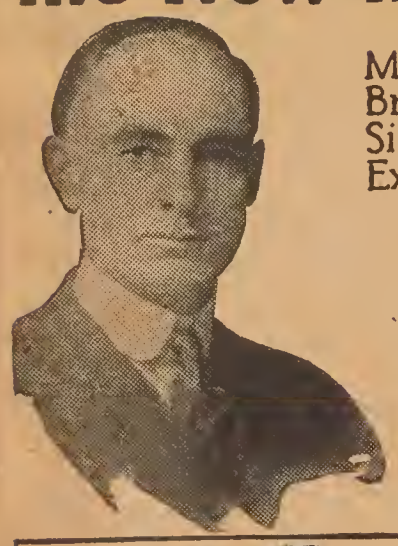
Chicks—Breeders—Eggs
S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.
TRY US AND BE SATISFIED
RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

CHICKS PEDIGREED, EXHIBITION & SELECT GRADES, from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.
NABOB HATCHERIES, Box A5 Gambier, Ohio

BABY CHICKS
Get a bunch of early chicks. Have that idle brooder earning money. The first broilers are the money makers. Prices now: Buff, Barred Rocks, Reds, Anconas, Minorcas, 18c each; White, Brown, Buff Leghorns, 16c each; Broiler chicks, 12c each. Write for prices for future delivery. Safe Delivery Guaranteed by Parcel Post.
NUNDA POULTRY FARM, Nunda, N. Y.

LARGE STOCK Fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Pigeons, Dogs, Stock, Eggs low. Catalog. **PIONEER FARMS. Telford, Pa.**

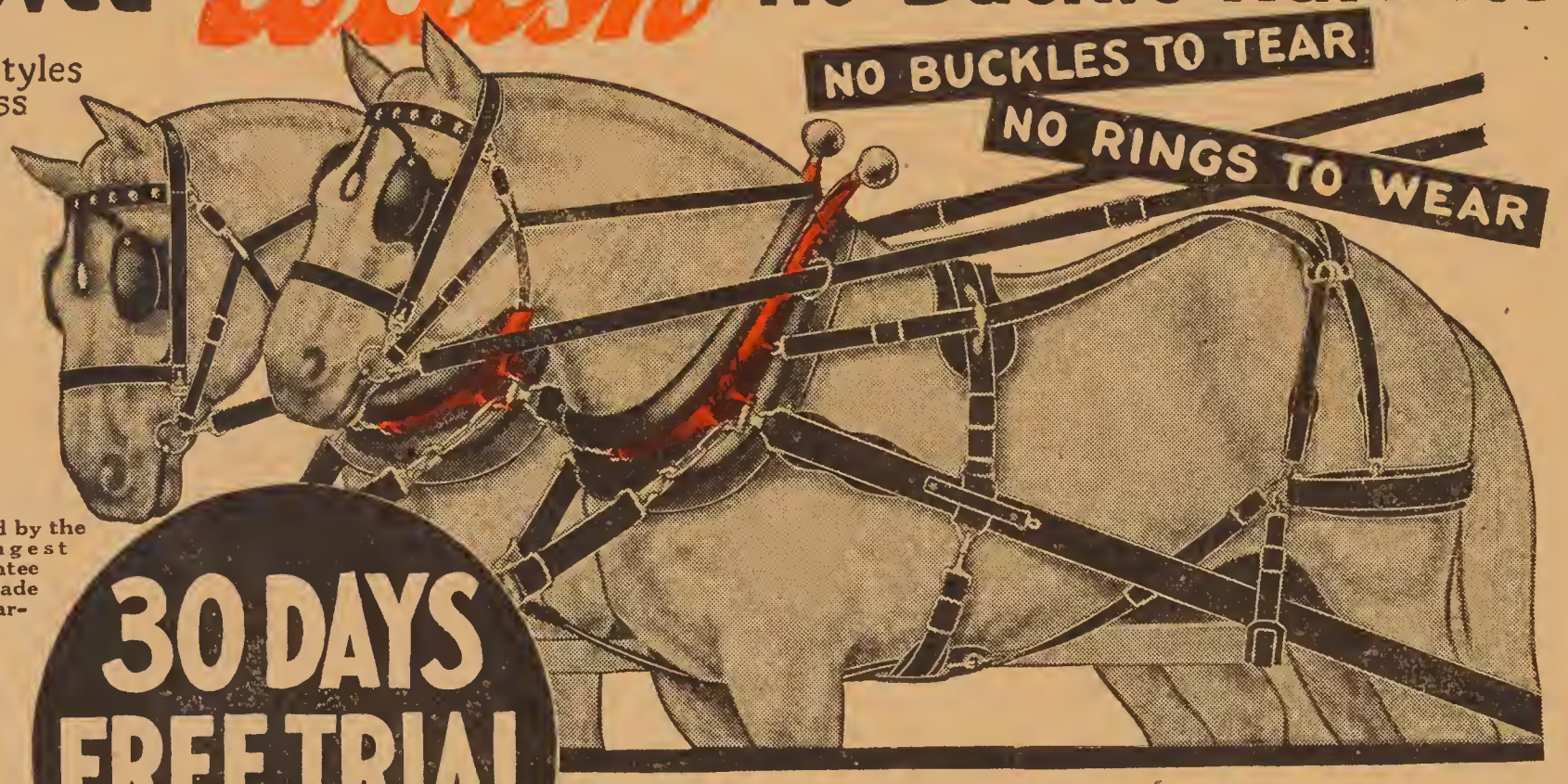
The New Improved *Walsh* No-Buckle Harness

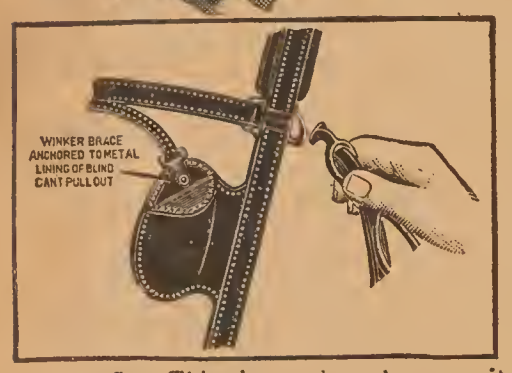


Made in All Styles
Breechingless
Side Backer
Express etc

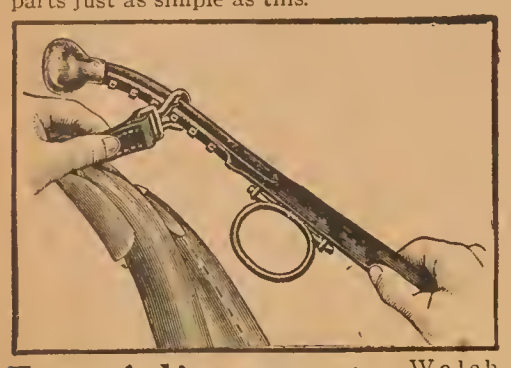
It has been eight years since I invented the Walsh No-Buckle Harness. Today there are thousands of satisfied users in every state in the Union

JAMES M. WALSH

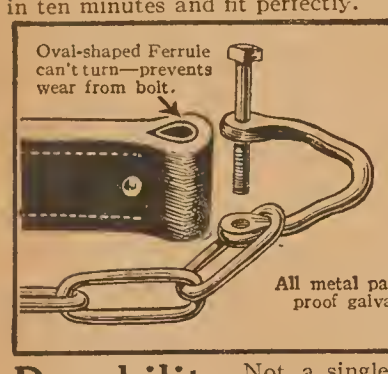




Handy This picture shows how easy it is to hitch and unhitch. All parts just as simple as this.



Easy Adjustments Walsh Harness can be adjusted from large team to small team in ten minutes and fit perfectly.



Durability Not a single place on Walsh Harness for metal to rub and wear leather.

Quality Only strongest part of hide is used. High-grade, bark-tanned, packers' Northern steer hide leather.

Strength From photograph of an actual test made for U. S. Army Officers. One of our regular Walsh side straps holding seven men in air, and the Walsh strap holder did not slip a fraction of an inch. The same strap with buckle in it broke with three men. Get Free Book for complete details.

Backed by the strongest guarantee ever made on a harness.

30 DAYS FREE TRIAL
Send no Money

The average cost of repairs per year is only 9 cents

My New Harness Book is Ready

Send for Your Copy Today—Post Yourself

Before You Buy Harness

Post yourself on this new way of making harness which has three times the strength of buckle harness. Let me send you a set of Walsh No-Buckle Harness on thirty days' free trial, just as thousands in every state in the Union have done. Let me show you how harness can be made three times stronger without buckles—how much better looking and how much handier in every way. Try a Walsh on your team 30 days. Send no Money. If it is not all that I claim, send it back at my expense. No obligation on your part. Write for the free book today.

Costs Less—Lasts Twice as Long

This wide-open, liberal offer shows that the Walsh must be an exceptionally good harness. If I did not know positively that Walsh Harness is better in every way than buckle harness, I could not make such an offer. In addition to having harness in the hands of thousands of users the country over for years past, I have tested and proven in various ways that my harness is better and stronger, hence cheaper by far than any other harness. I prove conclusively in my new harness book, which I am waiting to send you, that Walsh No-Buckle Harness will positively last twice as long as buckle harness.

Greatest Advance in Harness Making

Not only is the Walsh No-Buckle Harness stronger, but it is easier to put on and take off. It is also better-looking, handier, and eliminates frequent repairs. Has better fitting hames, adjustable strap holder—the harder the pull, the tighter it holds—renewable spring snaps and many other advantages explained in my free book. The Walsh is easily adjusted to fit any horse perfectly. And remember that Walsh Harness actually costs less than buckle harness because it does away with repair expense, and lasts longer.

The World's Strongest Harness

Users say the leather in Walsh Harness is the best they ever saw in harness. It is old-fashioned, bark-tanned, packers' Northern steer hide leather. A test made in a scientific laboratory proved that a Walsh 1⅛ inch breeching strap holds over 1100 pounds. The same strap with buckle in it breaks at about 350 pounds pull. When you consider that ordinary harness has 68 buckles, and Walsh Harness none, you'll understand why my harness does away with repairs and outwears two sets of buckle harness.

Friction Another Destroyer of Harness

Rings are another thing that makes harness wear out before it should. Examine your old harness and you'll find where rings have worn the straps at the ends. There are 270 places on an ordinary buckle harness where ring friction wears the straps in two. Walsh Harness has no rings to wear straps in two. Many other advantages are explained in the free book. Write for it today.

What Users Say

Government Experiment Stations, Agricultural Colleges are among the thousands of users in every state who praise the Walsh Harness. Walsh Harness took First Prize at Wisconsin State Fair in 1921 and 1922.

Mr. G. G. Anderson, Aiken, Minn., bought his first Walsh Harness five years ago and bought three more sets since for his other teams. He says: "Walsh has buckle harness beat a mile."

Mr. E. E. Ward, Seneca Falls, Wis., says: "Have used Harness over 40 years. The Walsh is the best yet."

Mr. J. W. Rogers, R. No. 4, Baldwinsville, N. Y., says: "Have used it skidding logs and that is giving it a hard test. I think enough of it that I will order another set in the Spring."

$5.00 After 30 Days' Free Trial

Balance easy payments or pay cash after trial if you wish. Selling direct from the factory to you enables me to give the highest quality of harness possible to make at lowest prices. You can get a Walsh Harness in any style—Breechingless, Back-Pad, Express, etc. Easily adjusted to fit any horse perfectly.

Write Today. My free harness book will give you many wonderfully interesting facts and valuable information on harness—tells all about the Walsh No-Buckle Harness—what hundreds of farmers think about it. We have a plan whereby you can make money showing Walsh Harness to your neighbors. There's a copy ready for you—Write Today.

JAMES M. WALSH, President

WALSH HARNESS COMPANY

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4-23

VOL. 111 Founded 1842 No. 4

AMERICAN AGRICULTURIST

$1.00 A YEAR January 27, 1923 5 CENTS A WEEK

The Greatest Market in the World

Our Only National Farm Fraternity—By S. J. Lowell

League Wins Great Legal Victory

Decision in Barnes Case Vindicates Farmers' Cooperatives

EVERY farmer who believes in organization and cooperation will rejoice with the thousands of members in the Dairymen's League Cooperative Association in the far-reaching decision just handed down by Rcferee James H. Merwin in the case of Barnes vs. Dairymen's League Cooperative Association and the Borden's Farm Products Company. The decision is a complete victory for the Cooperative Association. It will be remembered that the plaintiff, Barnes, a farmer and patron of the Borden Company at its Westmoreland plant sought an injunction to restrain the Borden Company from refusing to take his milk. Barnes claimed and tried to prove a conspiracy on the part of the Borden Company and the Dairymen's League Cooperative Association to fix the price of milk and to refuse to buy from him unless he joined the pooling association.

The trial of the case lasted for weeks during the past summer. A large amount of publicity was given to the case and a real attempt made to hold up any effective operations in the way of real cooperation on the part of milk producers. Time and time again milk marketing associations throughout the country have been brought into court through the efforts of the enemies of cooperation for the purpose of restraining and crippling the growth of the cooperative movement. In every instance such efforts have failed, although they have been unfortunate in costing the associations large sums of money which producers can ill spare and in giving the general public wrong ideas of the real work and purposes of cooperation.

This makes the second case in which the League has won an outstanding victory in legal battle with its enemies. Last year a lawyer farmer of Binghamton brought action against the League for damages claimed to be sustained because the League prevented him from marketing his milk. The result of this attack on the organization was a "no cause of action" verdict.

In handing down the decision in 'the Barnes case, Referee Merwin said in part "The defendants have not entered into any illegal conspiracy and the plaintiff has no cause for action whatever.

"The defendants have done no blacklisting or boycotting, nor have they indulged in any of the underhand practices which so often have been under condemnation by the courts in cases like this and which have always had a strong influence upon the decision of the court.

"I cannot on the evidence convict the Borden Company for any complicity in any scheme to force its patrons to join the pool and it certainly has a legal right to purchase its milk of any indivdual or groups of individuals that it wishes."

A statement issued by the Cooperative Association on the decision says:

"The decision is not only a victory, but a complete justification of the cooperatives' position. The decision is peculiarly significant, in that similiar decisions have been rendered in the Western States and the cooperative movement has thereby obtained a very strong position.

"Nevertheless, this is the first important decision in the Eastern States, which has gone into the cooperative marketing proposition exhaustively and is, therefore, very far-reaching in its result and will be historical.

"The cooperative associations, in its defense, has upheld the cooperative movement from every standpoint, and therefore, its action will be of great service to all cooperative marketing associations in the United States."

Kick in the Right Direction

THE Grange Monthly tells the following story about kickers in organization work, which is particularly worth thinking about by every member of the Dairymen's League Cooperative Association.

In one of the State lecturers' conferences we heard tell about a herd of mules at pasture being attacked by wolves. The mules huddled together in a circle with heads out to see the attacking pack and began to kick. They kicked each other to death and the wolves ate their carcasses. If the mules had put their heads together and kicked out, they would have kicked the wolves to death. The Grange exists to keep the heads of the farmers together in thought and when they kick, they kick out on all sides.

Alas, what a lot of farm organizations have kicked themselves to pieces! Be a kicker, but be sure whom you are kicking. Never let your heels be where your head ought to be. The decision in the Barnes case shows that the courts are standing by honest farmers' cooperatives. League members are soon to determine whether they can stand by themselves.—THE EDITORS.

Holstein Men Urge Extension of TB Work

Spirit of Optimism Prevails at Annual Meeting of New York Breeders

A GENERAL spirit of optimism, expressed in several concrete suggestions for improvement in the cattle industry during the coming year, marked the third annual meeting of the New York Holstein-Friesian Association held at Syracuse on January 16.

Among the noteworthy actions which showed the sentiment of the members, was the passing of resolutions condemning the display of "bogus" butter at the Syracuse State Fair, requesting the Federal Government to continue and extend the program to eradicate the ox-warble fly in the State, and urging the appropriation of sufficient funds to pay overdue indemities for tubercular cattle and to cover payments to July 1, 1923.

The association, according to the report of the Secretary at the meeting, now has a membership of 1,175. During 1922, it conducted five sales, at which 638 head of cattle brought $127,000.

One of the most enthusiastic moments of the afternoon session came with the passing of the resolution against permitting the "bogus" buttter display. The wording of the resolution which called upon the United States Government to continue the campaign to eradicate the ox-warble fly, invited the federal authorities to put on a three year program in one county of the State.

Professor H. H. Wing announced that he, Paul Meisner and Jimmie Bauermeister had judged the cattle consigned by the various clubs and had made awards to the following counties: First, Tompkins; second, Jefferson; third, Allegany; fourth, Onondaga.

Delegates to Cleveland Nominated

Nominees for delegates to the National Holstein Association to be held at Cleveland this year were as follows:

F. M. Campbell, Wilson; F. D. Van Buskirk, Hornell; Fred Blewer, Owego; W. W. Stevens, Liverpool; Dr. D. B. Armstrong, Watertown; H. T. Farrington, Lowville; Grant Low, New Berlin; Carl Schmid, Montgomery; D. R. Shaefer, Cobleskill; H. L. Stafford, Peru; L. D. Upham, Georgetown; R. E. Chapin, Batavia; A. A. Hartshorn, Hamilton; C. F. Bigler, Syracuse; C. L. Amos, Syracuse; Harry Yates, Buffalo; F. C. Overton, Adams; F. M. Jones, Clinton; J. C. Dald, Buffalo; Prof. H. H. Wing, Ithaca; H. Morgenthau, Jr., Hopewell Junction; H. V. Noyes, Oneida; C. B. Fletcher, Evans Mills.

The Board of Directors for the ensuing year are as follows:

Harry Yates, Buffalo; Maynard Smith, Horseheads; W. A. Follett, Norwich; H. V. Bump, Cambridge; C. B. Marshall, Morrisville; R. W. Dennis, Comsted; C. F. Bigler, Syracuse; G. N. Smith, Watertown; E. J. Chaffee, Wassaic; H. L. Stafford, Peru; R. E. Chapin, Batavia; Harvey Tarrington, Lowville.

C. F. Bigler was re-elected president, with the following list of officers: Maynard Smith, first vice president; C. B. Marshall, second vice president; George Smith, treasurer and E. R. Zimmer, secretary. The Executive Committee is composed of R. E. Chapin, Harry Yates, H. Farrington, and the President and Secretary ex-officio.

In the evening more than 180 breeders braved the big snowstorm to attend the third annual banquet of the association.

The first speaker, Secretary E. R. Zimmer,

(*Continued on page 75*)

Milo D. Campbell on Federal Reserve Board

MILO D. CAMPBELL, President of the National Milk Producers Federation, has just been appointed by President Harding as a member of the Federal Reserve Board. Mr. Campbell is well known by organized farmers everywhere and particularly in the East, where he has so often spoken on their problems straight from the shoulder and worked so effectively to solve them. The farmers of America are to be congratulated on having a true representative of agricultural affairs in such an important position. We extend to Mr. Campbell our heartiest congratulations.

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending January 27, 1923** **Number 4**

Our Only National Farm Fraternity

The Grange, America's Greatest Farm Organization—By S. J. Lowell

IN the progress of the United States during the past half century it has fallen to the lot of few organizations to render such distinct civic, economic and patriotic service as the Grange; while the latter easily heads the list of all rural associations that have striven to promote the welfare of the people who live in the open country.

Organized immediately following the Civil War, the Grange sought to rehabilitate the nation's stricken agriculture, and towards this end outlined a program more far-reaching than simply to promote the material prosperity of the farmer. It recognized that the real compensations of rural life are deeper than merely dollars and cents—that the atmosphere of the rural community, the social and educational privileges found within it, the comforts and conveniences of the farm home and an adequate opportunity for the development of its youth—all these constitute the background for a successful agriculture, deeply rooted in the happiness, contentment and ambition of its toilers.

A Leader in National Farm Affairs

Made up very largely of property-owning people, leaders in their respective communities and exponents of the highest patriotic and moral ideals, the Grange from the very start took a place of leadership in national affairs and with its growing membership and widening scope its influence has more and more impressed itself upon the progress of the half century. Organized to-day in thirty-five States, from Maine to California, the Grange embraces more than 8,000 local branches, has 800,000 dues-paying members and holds more than 200,000 meetings every twelve months: its organized energies devoted to the clearly-defined purposes: "To educate and elevate the American farmer." This is the Grange, the greatest farm organization, and the only farm fraternity in America.

That the Grange has striven all these years for vital things is amply evidenced in the fact that to its credit stands such a fine line of legislative, educational, civic and moral victories as the following: Free delivery of mail to millions of rural homes; parcel post and postal savings banks; vocational education; inaugurating a rural credits system; protection of dairy products from the unfair competition of imitation substitutes; widespread interest in better roads, particularly from farm to market; definite supervision of all public utilities; stringent pure food laws; increased appropriations for agricultural and experimental development work; extension of prohibition; enfranchisement of women. In all these worthy undertakings the Grange has performed an active part, while many of them were initiated within its councils.

The Grange is splendidly democratic in its organization, as its leaders are selected from the ranks and are constantly responsible to the membership for their acts; while the smallest subordinate is directly represented in shaping all the policies of the organization. The fine system which assembles subordinate units into Pomona or district bodies, these turn into State Granges and all the States compactly joined in the National Grange, creates an efficient force to get results and establishes a strong tie from the lowest to the highest rank of the Order. Free from every religious or political test for membership, embracing both old and young to a remarkable degree, admitting men and women on a plane of exact equality from its very beginning and with the highest of American ideals its guiding purpose, the Grange maintains to-day the sturdy purpose of its Founders—a genuine fraternity of farmers, strongly united with their families to serve the welfare of rural America.

While thus actively espousing the farmers' cause the Grange is likewise safeguarding the future, in that among its most noteworthy activities is the constant training and helpfulness for young people, thereby fitting them for the large civic duties which they must later assume. Here also is the outstanding feature of Grange assurance for future prosperity and growth. Indeed, in its care for its growing youth, it practically exemplifies the force of its fraternal motto, "Esto perpetua."

What the Grange Stands For

NO matter what the ups and downs of other organizations may be, each year sees the Grange making steady progress in size, influence and results accomplished. In reading the history of the Grange recently we found a declaration of purposes published in 1874, setting forth its specific objects. Although written nearly a half century ago these objects apply equally as well to-day. One does not have to look further than a statement of these objects, which we give below, to find the chief reason for the remarkable success of this great organization.

"We shall endeavor to advance our cause by laboring to accomplish the following objects:

"To develop a better and higher manhood and womanhood among ourselves. To enhance the comforts and attractions of our homes, and strengthen our attachments to our pursuits. To foster mutual understanding and cooperation. To maintain inviolate our laws, and to emulate each other in labor to hasten the good time coming. To reduce our expenses, both individual and corporate. To buy less, and produce more, in order to make our farms self-sustaining. To diversify our crops and crop no more than we can cultivate. To condense the weight of our exports, selling less in the bushel, and more on hoof and in fleece; less in lint, and more in warp and woof. To systematize our work, and calculate intelligently on probabilities. To discountenance the credit system, the mortgage system, the fashion system, and every other system tending to prodigality and bankruptcy.

"We propose meeting together, working together, buying together, selling together; and, in general, acting together for our mutual protection and advancement, as occasion may require. We shall avoid litigation, as much as possible, by arbitration in the Grange. We shall constantly strive to secure entire harmony, good-will, vital brotherhood, among ourselves; and to make our Order perpetual. We shall earnestly endeavor to suppress personal, local, sectional, and national prejudices, all unhealthy rivalry, all selfish ambition. Faithful adherence to these principles will insure our mental, moral, social and material advancement."

Two Outstanding Reasons for Strong Consistent Growth

There are many reasons why the Grange has made such a strong consistent growth in membership and influence and why it has been such a success in elevating farm life in America. But if I were to name two of the main reasons for Grange success I would say first, that the Order has always recognized the importance of women in the farm and national life and taken them in its membership on a par with the men; and second, that the Grange has recognized and worked for the spiritual and ethical in rural life as well as for material advancement.

It should be a source of pride to the Grange in this day of complete emancipation of women to remember that the Order has since its inception recognized woman's equality in all lines of endeavor. Particularly on the the farm, where the farm home is such an important part of the farm business and where the whole farm operation is one of partnership. The woman's hard work and sacrifices have done much to make the farm business a success and the farm home the best in the world.

Regarding the spiritual and ethical principles for which the Grange stands, we need them in these unsettled times more than ever.

America has sometimes been called the "land of dollars." Dollars are necessary. But there are things bigger and better than dollars and unless the individual can learn to recognize and appreciate those larger things he is bound to fail in ultimate happiness and in service to his fellows. The Grange recognizes and has built much of its success on those larger principles of life and living.

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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The Eastern Farmers' Advantage

OUR cover page gives a glimpse of the world's greatest market for farm products—New York City.

Into its great maw there comes every day ships laden with the products of almost every country in the world and hundreds of carloads of every kind of produce from the farms of nearly every State in the Union. Farmers of the East have the advantage of this great consumption center almost at their door. All they must do is to make their products high in quality and organize to sell them efficiently, and then they have a running start to beat every competitor to the best markets in the world.

Too Many Apple Varieties

STATEMENTS were made at the annual meeting of the New York State Horticultural Society at Rochester the other day. that over 240 different apple varieties were handled this season by the Western New York Fruit Growers Cooperative Packing Association, Inc. This ridicously large number of varieties shows the grave need of standardization to a much fewer number. There are few producers, however, experienced in the business that can name a majority of the different apple varieties and when it comes to consumers it is of course impossible for them to ever become acquainted with more than a possible half dozen different kinds of apples. One of the reasons why western apples have made a big hit in eastern markets is that consumers have come to recognize the two varieties which are most seen and advertised, the Delicious and the Spitzenberg. There is no outstanding eastern apple known by any large number of consumers, unless it may be the Baldwin.

The many varieties also make it very difficult for the packing associations to handle the large number of different pools, and the too many mixed cars. all of which causes delay in closing the pools and paying the producers.

Cutting down the number of different kinds of apples is a matter of education which will take some time and decided and united action on the part of the apple marketing associations. In the meantime perhaps there may be a grouping together and handling of varieties of very similar nature which may help somewhat to simplify the problem.

Chicken Thieves

IN an old farm-house bedroom, some twenty years ago, Brother George, since better known as George Duff, and ourselves lay sleeping one night as only farm boys can sleep. It was one A. M.—that no man's time when events of the day before have faded into the past and those to come are still with the future.

Suddenly we were awakened by a hand over our mouth. Mother was whispering in our ear "Hark! Hark! Don't make any noise! There are chicken thieves in our henhouse. Get up quietly while I get George up." Fire, murder and sudden death, none of them can raise any more gripping terror and creepy chills in a country boy than a midnight whisper: "There are thieves in the henhouse!" The only other excitement that even approaches it is that call which always stops every farm operation and puts everyone into a run—"The cows are in the corn!"

We got up and pulled on the overalls while Mother strove to wake George Duff. She had difficulty. It afterwards developed that he was fully awake from the first, but cold fear had gripped his heart and he strove to avoid his duty by feigning sleep. But Mother was insistent. And in her fear lest the thieves would get away with her prized pullets, she rolled him out on the floor.

Now George was a great gun enthusiast, and stored away in a rack in his room were representative firearms covering nearly every period of American history. It had often been George's boast that no one would dare to monkey around that homestead in the night, for if they did he with his arsenal would make short work of them.

Finally we were ready to sally forth. George Duff was armed with the gun which he always kept loaded with buck shot and rock salt for just such an emergency. To ourselves he handed a little air gun which he claimed with the usual frankness of an older brother, was as much of a gun as was safe for us to handle.

Far be it from us to cast aspersions upon the bravery of a "gun man" but we have always had our suspicions about that night's operations. We will grant that George Duff was willing to scare the chicken thieves away, but we still think he wanted to do that scaring from a safe distance. Nor is our belief founded entirely upon opinion. In passing out of the back door George Duff suggested that we keep well ahead of him carrying the lantern that he might see the better to apply the rock salt to the proper part of the thieves' anatomy. Also we noted that he very carefully drew the screen door out, and let it go shut with a loud bang, and too, it seemed to be necessary for him to clear his throat many times in a loud and efficient manner.

Anyway, whatever his motives were, his noise scared the thieves and they came dashing out of the henhouse and over the garden fence with us in swift pursuit popping away with our little air gun while George well (and safely) in the rear urged us on with loud and encouraging shouts. Across the garden, through the orchard and well up the lonesome hill road we ran still popping away with the air gun which the thieves in their fright no doubt thought was the whole Duff arsenal in action. Finally when we could no longer hear their retreating footsteps we gave up the chase knowing that their scare would keep them from molesting our hens again. When we finally got back to the house we found George Duff sitting on the horse block waiting for us. "I tell you Eddie" says he "if it hadn't been for this darned 'asthmee' interfering with my breathing, I would have had those robbers well started toward the county jail by this time!"

Mr. Bullock Resigns

READERS of American Agriculturist will be sorry to know that Mr. W. H. Bullock, so long connected with our Editorial Staff has resigned to accept Secretaryship of the New Jersey Federation of County Boards of Agriculture. In addition to the regular duties of Secretary of the Federation of County Boards of Agriculture, which corresponds to the New York State Federation of Farm Bureaus, Mr. Bullock will have charge of building up a centralized plan of agricultural publicity and promotion not only for the Federation, but also for the various other commercial and noncommercial farmers' organizations in the State.

Mr. Bullock has been with American Agriculturist for over eight years. In that time he has come to be known over a wide area as a capable and fearless champion of rural people and their problems. Mr. Bullock's long training in writing and in editorial work well fits hm to make a success in the responsible position which he has assumed and we join with his thousands of friends in wishing him the greatest possible success and happiness.

A Good Book Well Dedicated

ONE of the chief reasons why New York has no superiors and few equals in farm bureau work is the splendid leadership that has been given almost from the beginning by M. C. Burritt and H. E. Babcock. These men because of their ability to choose farm bureau agents who could make good and because of their genius for organization have given much to New York State agriculture.

In a recent book called "The County Agent and the Farm Bureau," published by Harcourt, Brace and Company, New York City, Mr. Burritt has summed up the accomplishments of the farm bureau and offered suggestions for continuing to make the work of the county agents more vital and worth while. Various phases of the county agent's service to his locality are analyzed, the programs of different counties are commented upon and the results correctly summarized. The relation of the county agent to the farmer, to the community, to the commercial enterprises and to government departments are clearly defined. The book is an important contribution to agricultural literature.

In the dedication of the book there is an interesting and kindly little story. As most of our readers know, Mr. Babcock was seriously injured by an automobile while he was riding a horse and confined to his home for many weeks during the past Fall. One day when he was feeling particularly discouraged and blue, Mr. Burritt came in for a visit. As he left he presented to Mr. Babcock a copy of his book which was then just off the press. After Mr. Burritt was gone, Mr. Babcock in looking the book over was very much surprised to find the following dedication:

"TO H. E. BABCOCK

Whose energy and good judgment have been a constant source of inspiration and of confidence during our eight years of public service together,

THIS BOOK IS DEDICATED."

Fruit Men's "Annual" Best Yet

Horticultural Society Stages Fine Exhibit and Meeting at Rochester

IF you like fruit and are interested in the many problems of the fruit producer you would have enjoyed the annual meeting of the State Horticultural Society at Rochester, January 12 and 13. The exhibits were good; the attendance was large and the program fair. The program could have been much improved had there been two or three talks which were not quite so technical and more of an inspirational nature. In attending this meeting one could not help but be particularly impressed with the great interest that producers are taking in the technical problems of their business. But in these discouraging times men need in addition to technical information some encouragement and inspiration that will give them hope to fight the many disheartening farm problems.

Eastern apples lead the world in quality. The fruitgrower's job is to convince the consumer of this fact

The fruit and machinery exhibits were especially good. Let Eastern growers market their fruit as well as they grow it and they will not have much cause for discouragement in results from their business.

No one can attend an exhibit of New York State apples without a feeling of pride in the natural qualifications for fruit growing in this section and the ability of Eastern fruit growers to make the most of those qualifications in growing the finest apples in the world.

The hall where the exhibits were held at Exposition Park was filled with an impressive array of machinery and supplies needed in orchard culture. The amount and variety of equipment necessary in the business shows what a great technical trade modern fruit growing has become. Farmers of former generations set out their apple trees and picked the fruit. Sometime when the spirit moved them they did a little "trimmin," but for the most part their orchards "just grew" and they paid little attention to them. The change in methods that has been necessary to produce modern fruits is emphasized by the statement which we heard one grower make at the Convention, to the effect that it had cost him over a thousand dollars during the past season to spray his orchards, to say nothing of the other care that had been given them.

Officers elected to head the Horticultural Society for the coming year are as follows: President, J. B. Pease, of Gasport; first vice president, C. S. Wilson, of Hall; second vice president, E. W. Mitchell, of Kinderhook; third vice president, J. G. Case, of Sodus; fourth vice president, F. J. Freestone, of Wayne county; secretary and treasurer, Ray McPherson, of Le Roy; treasurer of the permanent fund, H. E. Wellman, of Kendall; Executive Committee, Wiltsie Tenbroock, of Hudson; T. E. Cross, of Lagrangeville; W. D. Chase, of Monroe county and Leslie Tanner, of Sodus.

A large amount of care was given at the meeting to resolutions effecting the interest of fruit growers and those adopted by the Convention are so important that we are giving most of them in full below:

Supports College and Equipment Station

WHEREAS, the benefits to the Horticulture of the State of New York from the investigations which are being conducted at the State Agricultural Experiment Station at Geneva, are becoming increasingly apparent each year; and

WHEREAS, the Program for the Development of the facilities for research at the Station which has been prepared by the Director and Staff gives promise of still greater benefits to the industry in the future; therefore, be it

Resolved, that the New York State Horticultural Society, at its annual meeting in Rochester in January, 1923, hereby reiterates and confirms the action taken at its summer meetings in approval of the proposed Program of Development of the Station, and urges the adoption of this plan by the Governor as the basis for future financial support for the Station; and be it further

Resolved, that we specifically urge the Legislature of 1923 to make the necessary appropriations for the erection of the horticultural research laboratory building at Geneva and for the inauguration of the field investigations in horticulture in the Hudson River Valley.

WHEREAS, Dr. Thatcher of the New York State Experiment Station at Geneva has prepared a plan at the request of the fruit growers for greatly enlarging the work at the Station, therefore, be it

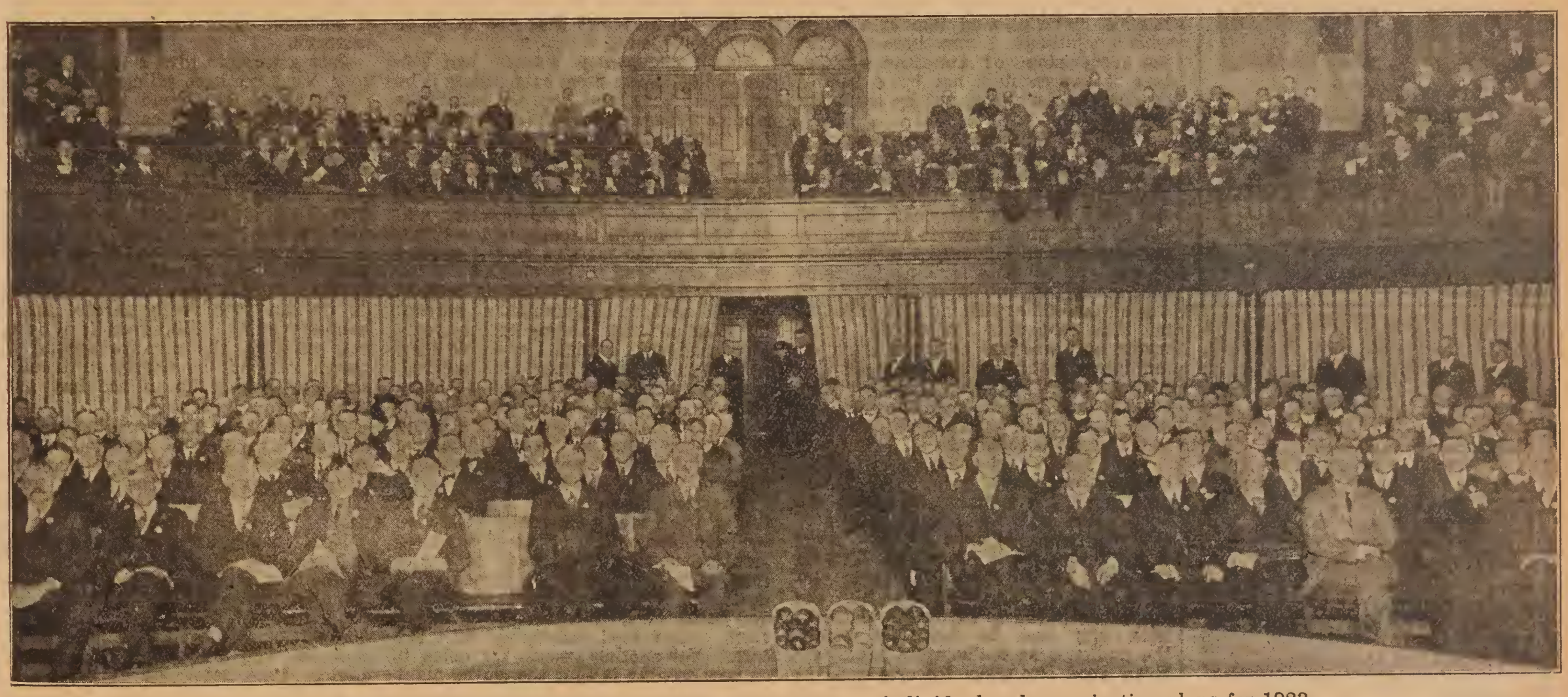
Resolved, that this Society hereby endorses that general plan and requests the chairman of the Senate Finance Committee and of the Assembly Ways and Means Committee to approve such plans. Also that a copy of this resolution be sent to each of the above named men.

WHEREAS, the present buildings of the College of Agriculture at Ithaca are inadequate—lacking in accommodations for the staff of instructors and in seating accommodations for the students; and

WHEREAS, the general building plan formulated several years ago provided that a Plant Pathology building should be erected the present year, therefore, be it

Resolved, that the New York State Horticultural Society hereby petitions the present Legislature to appropriate sufficient funds to erect and equip the

(*Continued on page* 73)



New York's Horticultural Society in annual session maps out individual and organization plans for 1923

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Lowly, It's True, Yet Fundamental

The Handling and Use of Farm Manure—By Jared Van Wagenen, Jr.

I AM moved to write briefly regarding one of the lowliest and yet one of the most important and fundamental of agricultural labors, viz., the handling and use of manure. I approach this topic nót as one giving proper information, but rather as one who has become a little shaky and uncertain as to his own practice and preaching, and who would frankly like to ask the advice and experience of other men. If there is one phase of farm management for which, both by paternal training and by experience, I have a vast liking and interest, it is this very humble subject. My father was a good farmer, and from my earliest youth, by precept and example, he impressed upon me the Doctrine (he didn't call it by that name) of the Conservation of Manure.

J. VAN WAGENEN, JR.

It is a homely tale, but absolutely true, that in dry, snappy winter weather, I was frequently detailed to go into the snow-covered, hard-packed barnyard with a mattock or ax and loosen up the fresh, frozen cow dropping, so that they might be loaded on the sleigh. Anyone who has ever engaged in this lowly occupation, will remember how a single sharp crack of the ax will result in a clear-cut separation of the frozen mass from the icy bed below. Moreover, the job has in it certain elements of sport, a sort of game, if you will, ever so much more inspiring than, say, running a buck-saw or turning grindstone. I think it might be reckoned a sort of barnyard polo played on foot instead of horseback.

One Way to Measure Its Value

I believe my father used to assure me that each one of these frozen mounds would grow a hill of corn, an estimate of their value a good deal higher than would be borne out by the cold findings of chemical analysis. With a boyhood training of that kind regarding manure, it is small wonder that I still have a very great regard for the humble material, and like to spell it with a capital *M*. I sometimes say that the corner-stone of American agriculture is represented, not by a bag of commercial fertilizer, but by a pile of manure.

I think it must have been at least a dozen years ago, when Dean Cook raised a veritable furor by somewhere declaring in a public address that in the mind of many dairymen, the real object of keeping a cow is her manure, and that her milk is only a by-product. It was one of those striking epigrams that carry far, and later he had to do a good deal of explaining. It seems to me that very few agricultural statements ever aroused as much comment and interest and resentment as did this happy flash of the Dean's. Well, I must confess that my own mental outlook almost puts me in the class of dairymen to whom Cook referred.

My memory and experience in agricultural audiences goes back to the days when the manure pile under the barn eaves was the favorite mark of every agricultural exhorter. We never failed to wallop it soundly. We used it as did the old-time temperance lecturer who was accustomed to hire the village drunkard to sit on the platform with him and be held up before the audience as a "horrible example." Even good Professor Roberts used to tell of the farms he had seen where it was an open question if it would be easier to move the manure pile or move the barn.

One Good From Sanitary Inspection

Well, this one-time pertinent matter has largely lost its importance. The classical manure pile beneath the eaves has pretty well vanished from the milk-shipping districts. I have small regard for the average city milk inspector, and a large proportion of the 160 odd rules that the New York Board of Health has established have very little bearing on the question of good milk—yet one great service the so-called sanitary inspection has accomplished—it has brought about a general clean-up of barnyards such as no amount of mere exhortation by press or platform would ever have accomplished. We have been pretty thoroughly reformed by strong-arm methods, for which let us be properly thankful. It may fairly be said that the daily drawing of manure, or at least its removal, to 100 feet from the stable, has become the rule rather than the exception.

I think I have now come to the questions that I had in mind to ask—Where shall we use this manure and how and when shall we apply it?

Of course, in the great majority of cases in the East, when we think about manure, we are thinking about the dairy farm, and by common usage we dairy farmers of this region have pretty nearly standardized on a three-crop (not a three-year) rotation, this being corn, followed by oats, or better, oats, peas and barley in mixture with the grass seed and then the meadow mown until in the judgment of the owner it needs breaking up and putting into corn again. This is a very simple, yet widely used, and, I feel sure, sound rotation for most dairy farms.

The Choice of Where to Place It

Well, that leaves us only two choices as to where to put the manure. It must be used either on the new seeding or on the old meadows that are to be or have been plowed for corn.

Green nitrogenous manure had better be kept away from oats, unless it be on pretty poor land, because oats make trouble enough with lodging, even with the fertility left over by the corn crop. As to whether we shall use manure to grow new seeding or to grow bigger corn, I don't believe it is a vitally important matter. Our old practice, and one very common throughout the State, was to put the manure on the ground where corn was to be planted. More recently I find we are swinging over, at least in part, to the practice of spreading it on our new seeding or best yearling meadows. I think I can give some good reasons for using this method. For one thing, theoretically, at least, there is less likelihood of loss of plant food when manure is spread on a living sod rather than on raw, fall-plowed land. But no one knows just how much there may be to this idea.

Another reason is that if manure is full of weed seeds, especially yellow or wild mustard, which is one of our most troublesome weeds in both oats and corn, it will be better to spread on a meadow and let these seeds germinate and perish harmlessly, instead of giving them a fine seed bed along with the corn. Yet another reason for using it on new seeding is that the clover plant is so fundamental to agriculture, both as a nitrogen gatherer and soil improver, and as a source of protein in the ration, that we may well devote our greatest energy to getting the maximum results from this plant.

Sometimes, however, there is a rather serious difficulty in spreading manure on the meadows. On Hillside Farm we grow a good many oats and generally a few acres of wheat, and so have more straw than we usually know what to do with. If coarse, strong manure is thickly spread on meadows without rotting, a good deal of it may rake up again with the first crop of hay.

Are We Justified in Piling Manure?

Now I am coming to the point regarding which I wish to ask advice: Are we ever justified in piling manure in large piles on the field to be spread later on?

For a great while I have been accustomed to say—making it a sort of a categorical statement—that the proper way to handle manure was out of a water-tight gutter behind the cows, into a water-tight wagon box and then spread upon the land, regardless of weather conditions, every day in the year except Sunday. I say "except Sunday" because as a churchman I believe in cutting down chores on that day to the irreducible minimum and because outside of that the dairyman must make an effort to practice as far as possible his greatly broken day of rest. For years in practice as well as preaching I lived up to this exhortation.

Right here is where I am becoming a little irregular and shaky. There are two or three reasons why I am asking questions about this. For one thing, I cannot quite rid myself of an uneasy feeling that where manure is spread on deep snow, or perhaps worse, on a bed of ice covering the fields, and then there comes a thaw and rain and a rush of water everywhere, I am afraid I say that some of my precious plant food goes merrily to the sea. I am sure that a coffee-colored stream goes from the field. Of course, the wise men tell us in rather learned terms that this is mainly coloring matter an tannin. But, like the Scotsman, "I ha' me doots."

The unfortunate truth about manure is that it is almost impossible to handle it without some loss. We lose if spread under some conditions, at least. We surely lose if piled in the open. Even if sheltered from the weather, we lose nitrogen.

Just a word to give a couple of reasons for sometimes piling in the field.

We ought to spread manure more widely, smaller application and more frequently. A manure spreader will do a better job and make a load go further than would be possible by the most careful hand-spreading. Moreover, I am not sure that the practice of piling really requires much more labor. It is a debatable question if we cannot pitch off a load of manure and pitch it on the spreader again about as quickly as we can do a really careful job of hand-spreading. Moreover, if it is on new seeding, the manure spread by power will not be nearly so troublesome by raking up in the hay next year.

At present we are spreading most of our daily product of manure. Later, as the snow becomes deep, we shall put it in large piles on the knolls away from pools of water and where the snow will not bank around it.

Next spring, as soon as the ground becomes firm enough and before work on the land begins, this manure will be rapidly handled with a spreader.

I know that this is not really orthodox. I am not even cock sure of my own position, and am willing to take advice. I am merely stating the matter as I happen to see it now.

POLO IN THE BARN YARD

MILO D. CAMPBELL, president of the National Milk Producers Federation, tells a good story about one of his neighbors up in Michigan. It seems that this neighbor lived near another farmer who was noted for his closeness, and being rather irritated by this characteristic in a business transaction he rather emphatically referred to the farmer as "the most manuriest cuss" he had ever seen!

Mr. Van Wagenen has written on this page a "most manuriest" article and has made the very good suggestion that some short letters, giving your experience with this essential practice in good farming would be worth while. All right, let's have some.

Incidentally, because there is so little opportunity for recreation on the farm, we call especial attention to Mr. Van Wagenen's suggestion for playing "barnyard polo!"

Endorse Rural School Plans

Agricultural Society Urges Important Legislation

STATING that agriculture was fed up on words and needed some action, Governor Smith told the annual meeting of the New York State Agricultural Society that the State Department of Farms and Markets was not efficiently functioning and that it should be reorganized. The meeting of the Society was held in the Assembly Parlors in the Capitol Building at Albany on January 16 and 17. The Governor spoke on the evening of January 16. He said that it was his thought that the Department of Farms and Markets would be much improved if the Commissioner was appointed directly by the Governor instead of by the Council of Farms and Markets, as at present.

The Governor was preceeded in the evening session by Lieutenant-Governor Lunn, who outlined the needs of farmers as he saw them, and expressed the desire of the present State Administration to cooperate with farmers in working out their problems.

H. E. Machold, Speaker of the Assembly, told the farmers that he did not think so much talk about farm credits was of very much help to farmers; that one of the difficulties of all kinds of business at the present time is that they had too much credit during the war. He also suggested that if farmers would come as a unit when they asked for legislation they would be much more likely to get it.

Officers of the State Agricultural Society for the coming year were elected as follows: President, A. L. Brockway; Vice-presidents—E. R. Eastman, New York City; H. B. Fullerton, Medford; Peter G. Teneyck, Albany; George W. Sisson, Jr., Potsdam; W. A. Parsons, Syracuse; Henry Burden, Cazenovia; W. P. Schanck, Avon; S. J. Lowell, Fredonia; J. A. D. S. Findlay, Salisbury Mills; Secretary, Charles H. Baldwin, Albany; Treasurer, Harry B. Winters, Albany; Executive Committee, John J. Dillon, New York City; R. W. Thatcher, Geneva; T. E. Cross, Lagrangeville; W. H. Manning, Saratoga; F. J. Riley, Sennett.

Committee of 21 Endorsed

Among the important resolutions adopted was one heartily endorsing the work and suggestions for the improvement of rural schools of the Joint Committee of 21, and resolving that the recommendations of the committee be drafted into legislation and enacted into law, and that such action be sponsored by the State Agricultural Society and all other farm organizations. Another resolution heartily endorsed the work being carried on by the Port of New York Authority for simplifying of transportation and marketing machinery in the metropolitan district. Another resolution urged the resumption of construction of needed buildings at the State College and the State Experiment station. And, another one pledging the support of the Society to get the World's Dairy Congress at Syracuse and to make its program and attendance a success. An important resolution effecting local taxes was adopted by the Society to the effect that the cost of building and maintaining bridges on improved highways of the State be derived from the same sources that builds the roads.

BIG FARM WEEK AT TRENTON

The farm organizations of New Jersey, cooperating with the New Jersey State Department of Agriculture, the College and Experiment Station, the their annual Agricultural Week at Trenton, N. J., January 16 to 19. It was one of the best annual conventions since the creation of Agricultural Week in 1915. In conjunction with the educational and business programs of the various organizations, a Farm Products Show was held in the large Armory which displayed the potatoes, fruit, corn, poultry, swine, cattle and dairy cattle produced on New Jersey farms.

The large educational exhibit of the New Jersey State College of Agriculture depicted the splendid progress which this institution has been making in recent years. The New Jersey State Bureau of Markets, cooperating with the individual farmers of the State, portrayed the work of that department by an attractive booth.

The legislative program of the New Jersey State Federation of County Boards of Agriculture, at its annual meeting during Agricultural Week, called for an active season ahead on the part of the Federation. The New Jersey State Highway Commission was requested by the farmers to determine the means of building substantial rural and township roads at a cost in keeping with the taxing ability of adjacent property, this in conjunction with the Good Roads Program collectively urged by the farm organizations in New Jersey. The Federation also endorsed the reorganization of the New Jersey State Highway Commission into a small governing body of not over three men and renewed its previous endorsement of open competitive bidding for all highway construction work.

Motor vehicle fees more nearly commensurate with the wear and tear of the vehicles upon the road were also recommended by the Federation members, who demanded that "in keeping with such requirements the registration fees on heavy trucks should be greatly increased, and the weight of such trucks should be reduced until such time as definitely designated roads are constructed which will permit the use of heavy trucks." The improvement of rural schools and a more centralized agricultural program for the farmers' organizations of New Jersey were recommended.

The Goal of Organized Agriculture

Participation of all of the New Jersey agricultural institutions and farm organizations in a broad, centralized program was pointed out as the goal of organized agriculture in New Jersey by Dr. Frank App in his General Secretary's Report for 1922. He said: "During the past two years we have made rapid strides in this direction. This is particularly true in all matters pertaining to agricultural legislation. A large measure of the success has been due to the hearty cooperation of the New Jersey State Grange, working in conjunction with the Federation."

For the coming year the officers of the New Jersey Federation of County Boards of Agriculture are: President, H. E. Taylor, Freehold; Vice-president, H. B. Hancock, Bridgeton; Treasurer, Dr. Frank App, Trenton; Secretary, W. H. Bullock, Trenton; Trustees: E. E. Logan, Mt. Holly; Joseph Barton, Moorestown; W. H. Whiton, Neshanic. The Executive Committee is composed of: Henry Tapken, Egg Harbor; C. B. Lewis, Riverton; H. H. Bell, Mt. Ephraim; Joseph Camp, Pierces; R. C. May, Vineland; Lester C. Genung, Chatham; Harry Lafferty, Sewell; John Tine, Lebanon; William H. Blackwell, Titusville; D. J. Perrine, New Brunswick; H. W. Herbert, Englishtown; W. H. Haines, Dover; R. Franke, Whitesville; C. E. Moore Daretown; W. H. Whiton, Neshanic; Ralph Decker, Sussex; and Ernest Race, Belvidere. all of New Jersey.

Potato Men Seek Aid

The most important business before the annual meeting of the New Jersey State Potato Association was a discussion of the ways and means to bring about a better situation for potato growers in New Jersey. The association requested the Governor in his annual budget to the Legislature to add an item of not less than $5,000 appropriated to the Division of Agricultural Economics at the State Experiment Station, in conjunction with the Department of Agriculture, to go into a study of the economic production and marketing of New Jersey potatoes.

Annual meetings of the New Jersey State Poultry Association, Guernsey and Holstein Breeders' Associations, Beekeepers and Dairymen were held during the week. Considerable interest was shown in th activities of the Poultry Association in its efforts to boost New Jersey eggs, and to bring about better prices for members by the further stabilizing of their product and the placing of it on the market in uniformly labelled cases.

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99.50 Pure or Better is the highest grade obtainable

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Dibble's Fancy Alsike—Best money can buy. *Dibble's Famous Natural Timothy and Alsike Mixture*, around 20% Alsike and less than 1% of weed seeds, the seeding bargain of the year and a full line of Grasses, Vetch, Field Peas, Soy Beans, etc.

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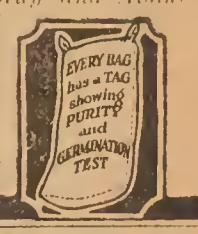

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Profits this year must come from 'more stuff from each acre'—not from 'high prices'. **Start right—sow good seed!** It never costs much more, and always pays better. **Hoffman's Seeds Pay** because they're **extra good** grades—that's why you should sow them. Let us tell you more about them.

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Corn 10 kinds. **Ensilage** and **husking** types. Heavy producers. High germination. Satisfaction guaranteed.

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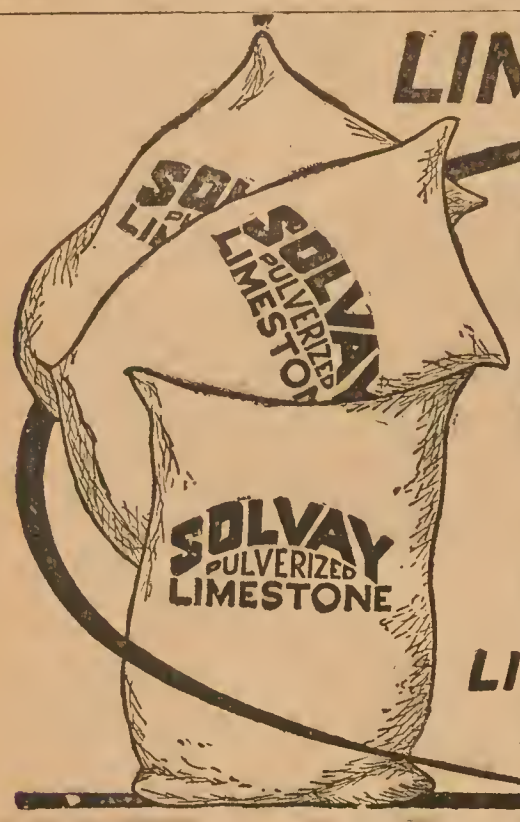

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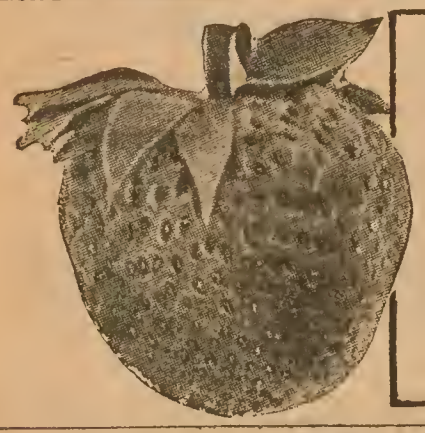

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How Eggs Are Graded

Definition of Quotation Terms—Herschel H. Jones

THE time is coming when the terms used to describe the various grades of eggs will be uniform on all markets in the same way that standard grades of potatoes have come to be accepted quite generally. Until that time arrives, however, the established trading agencies will continue to regulate the requirements on size, quality, color and weight of eggs which make up the various market grades. Even in New York City, which is the largest egg market in the country, there is a certain amount of discrepancy in the classification of the various grades of eggs, but traders turn generally to the egg rules laid down by the New York Mercantile Exchange and quote their prices according to the classification which the Exchange has in effect for its members.

In the American Agriculturist market reports and in the various daily and weekly papers which come to the farmer appear such terms as fresh gathered, hennery whites, nearby gathered firsts, etc. There are three distinct phases of the classification. Terms descriptive of the geographical origin of the eggs appear first—New York State, western, or nearby, the latter referring to eggs which are produced within a few hours' express haul of the market quoted. Then, the eggs are described by terms which indicate the age of the eggs—fresh gathered, held fresh, hennery, refrigerator and storage eggs. Next, they are classified according to the quality of the eggs.

The geographical description is self-explanatory. Under the classification according to the age, the New York Mercantile Exchange defines the classes as follows:

Fresh Gathered—Eggs which arrive at the market from producers without retention at any point beyond the time necessary for rehandling or for obtaining the usual unit of shipment.

Hennery Eggs—Those which meet the qualifications above for fresh gathered eggs, but, in addition, those which reach the market directly from the poultry farmer or fancier upon whose premises they are produced.

Held Fresh—Eggs which do not meet the above requirements, but which have not been preserved and which have not been held so long as to come under the branding required by law for cold storage or refrigerator eggs.

Refrigerator Eggs—Those which have been held in cold storage under such conditions as require their branding as such according to federal or state law.

Color—Eggs marketed without color description are assumed to be "mixed" eggs, according to the trade. White eggs are those of which 95 per cent must be chalk white if extras, and 85 per cent chalk white if in the other grades. Brown eggs must be 95 per cent uniform brown if extras, and 85 per cent uniform dark brown if in the other grades.

Grading Within the Classes

Within these classes just described, eggs may be of varying quality, and are described as Extras, Extra Firsts, Firsts, Seconds, Number 1 and 2 Dirties, and Number 1 Checks. Applying these terms, the following definitions are accepted by the trade.

Fresh Gathered Extras—Those packed in new or standard 30-dozen egg cases, which from January 1 to May 14 each year shall have at least 90 per cent clean, fresh, reasonably full, strong, sweet eggs of an average weight of 46 pounds net. Other than loss, the other 10 per cent may be defective in strength or fullness, but must be sweet. The dead loss in bad eggs must not exceed three eggs per case and the total average loss not more than one dozen per case. Between May 15 and December 1, the 90 per cent requirement is reduced to 80 per cent, the dead loss in bad eggs increased to six eggs and the total average loss to 1½ dozen per case.

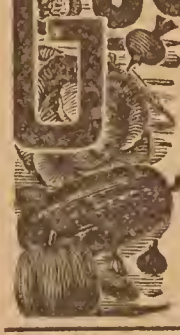
Extra Firsts—As above except that the 90 per cent requirement is reduced to 75 per cent, and the 80 per cent requirement to 65 per cent. The net average weight must be 44 pounds or over. The total average loss may be two dozen per case, but of that loss not more than nine bad eggs.

Fresh Gathered Firsts—As above except that the percent requirements are 65 and 50 per cent, respectively. The net average weight must be 43 pounds. The dead loss in bad eggs may be one dozen per case and the total average loss two dozen per case, except between July 1 and August 15, when a dead loss of 1½ dozen and a total average loss of three dozen per case is allowed.

Fresh Gathered Seconds—As above except that the requirements are lowered to 50 per cent and 40 per cent, respectively. The net average weight must be 41 pounds. The average loss is increased to three dozen per case, but of this the loss in bad eggs must not be more than eighten eggs per case.

Similar requirements within the various classes are made for storage and refrigerator eggs which, of course, are taken care of by the dealers and cold storage men.

GOOD SEEDS



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GRASS SEED

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FREE SAMPLES

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WOOD ASHES Hard Wood, Unleached, $13.00 per ton in car or less.

W. H. LEIDY SWARTHMORE, PA.

Fruit Men's "Annual" Best Yet

(*Continued from page* 69)

Plant Industry Building which will adequately provide for the Department of Plant Pathology, and the Secretary of this Society is hereby directed to send a copy of this resolution to Governor Smith, the Chairman of the Senate Finance Committee, the Chairman of the Ways and Means Committee, and the Officers of this Society are directed to use their best efforts toward this end.

Endorses Committee of 21

WHEREAS, the committee of twenty-one have made a careful and painstaking study of the Rural School System of New York State, and

WHEREAS, the committee are making recommendations for changes in the School Law of the State, based on their findings, therefore, be it

Resolved, the New York State Horticultural Society indorse the work of the committee of twenty-one and urge further efforts to acquaint our people with its findings and its recommendations.

WHEREAS, the system of taxation for school purposes rests unevenly on many districts, making it very difficult to maintain adequate schools, and

WHEREAS, a new law is to be passed by the coming session of the Legislature, therefore, be it

Resolved, that the General Conference Board recommends a state-wide system of taxation, making the burden bear equally throughout the State.

WHEREAS, the Horticultural interests of the Stato are entitled to a new building on the State Fair Grounds the present year, and

WHEREAS, the State Fair Commission has unanimously agreed to use its influence to that end, therefore, be it

Resolved, that the New York State Horticultural Society hereby appreciates the action of the State Fair Commission and petitions the present Legislature to appropriate a sum of money sufficient to build and equip a suitable Horticultural Building; and that a copy of this resolution be sent to the Chairman of the State Fair Commission, also Governor Smith, the Chairman of the Assembly Ways and Means Committee and the Chairman of the Senate Finance Committee.

WHEREAS, the New York State Fair's Governing Board as now constituted consists of seven members, namely President of the Senate, Commissioner of Farms and Markets and five persons appointed by the Governor, by and with the consent of the Senate, for a term of five years, one being appointed annually, hence the member's term expires each year; and

WHEREAS, the New York State's Horticultural interests have no representation on this commission, therefore, be it

Resolved, that it is the earnest desire of this Society in annual session assembled that Governor Smith be asked to appoint an active Fruit Grower on the New York State Fair Commission.

WHEREAS, the Gipsy Moth is entering New York State along an extended front and if allowed to spread may neeessitate huge sums for control work and cause enormous losses in addition, and,

WHEREAS, the practicability of exterminative and control work has been demonstrated, therefore, be it

Resolved, that the New York State Horticultural Society record itself in favor of the State of New York, in cooperation with the Federal Government, establishing a barrier zone in the Hudson Valley and its natural extensions beyond which this pest shall not be allowed to become established.

WHEREAS, the existing law which forbids persons under eighteen driving an automobile unless accompanied by an older person results in serious hardship to students attending high school, therefore, be it

Resolved, that the New York State Horticultural Society goes on record as favoring a modification of the existing law to the end that provision be made under proper restriction, after passing chauffeur's examination, for competent persons under eighteen to be granted a permit to drive a car for purposes of attending school.

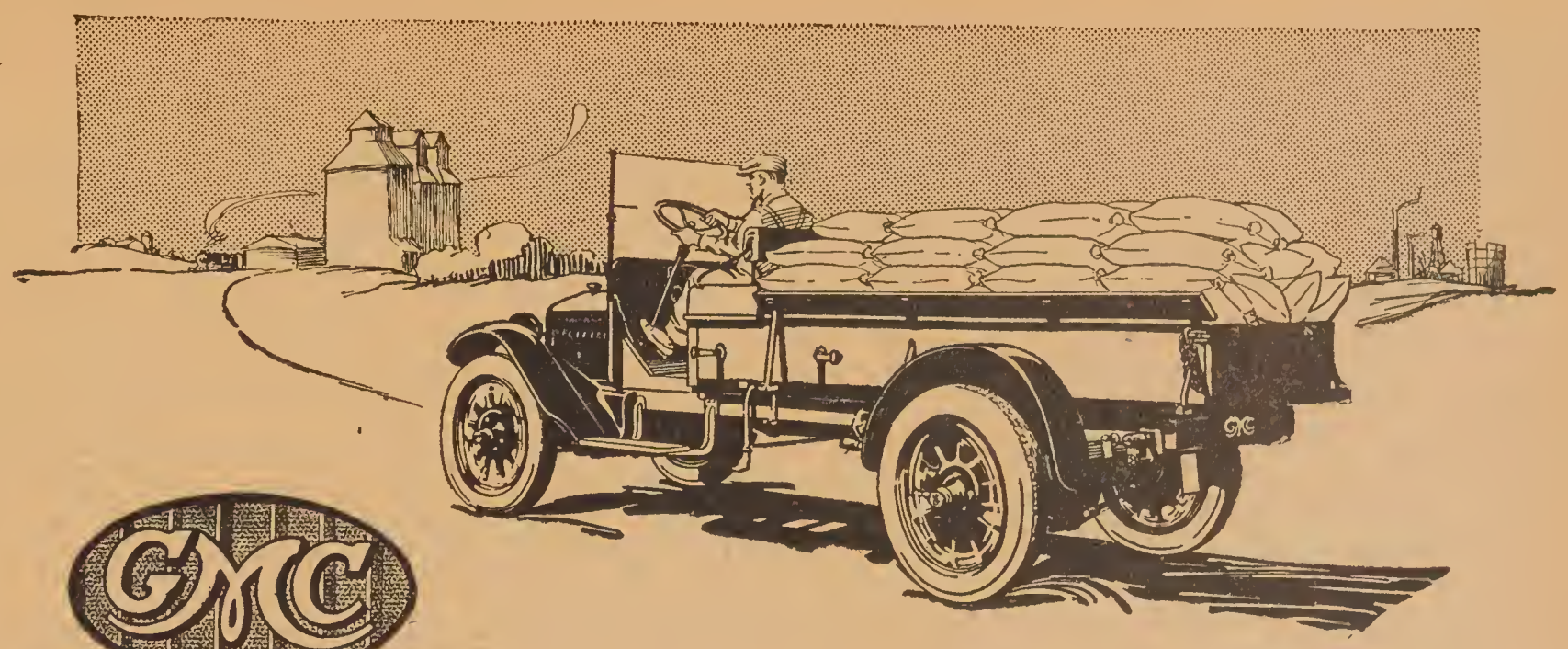
WHEREAS, under the present law the cost of building and maintaining bridges on the State and county highways is now born by the towns thru which these roads pass, thereby placing an unjust burden of taxation on these towns, therefore, be it

Resolved, that the New York State Horticultural Society goes on record as favoring a change in the law requiring the cost of building and maintaining these bridges, to be paid from the same source that builds the roads.

WHEREAS Governor Smith has declared his intention of recommending to the Legislature drastic changes in the Agricultural Law of the State with a view toward improving the work of the Agricultural Department, therefore, be it

Resolved, that the New York State Horticultural Society will heartily cooperate with the Governor in any changes he may suggest that will, in the *judgment* of the General Conference Board, improve the existing condition in the Department and increase its efficiency—EDITOR'S NOTE—It was stated at the meeting that this resolution is not to be interpreted to mean that the Horticultural Society believes that radical changes in the Department are needed.

Farm Machinery—Give every implement and machine a careful inspection sometime this month, or next, so that everything may be in readiness for the coming season. Replace old, rusted, or broken parts with new, reliable pieces. A little forethought often prevents costly delay. Use the oil can, the grindstone and the tool kit.



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The Best Truck for the Farm

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The exclusive features of GMC construction, developed from more than ten years of successful truck building, have provided this truck with more continuous performance and lower operating and maintenance costs. Due to its advanced design there is not a single wearing part in this truck that cannot be replaced. Such refinements as Removable Cylinder Walls, Removable Valve Lifter Assemblies, Pressure Lubrication, and Instantaneous Governor action all give to this truck the dependability that is so vital in farm trucking.

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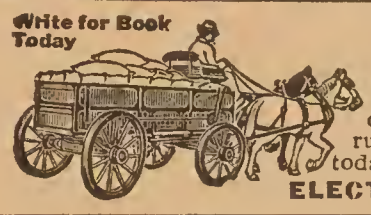

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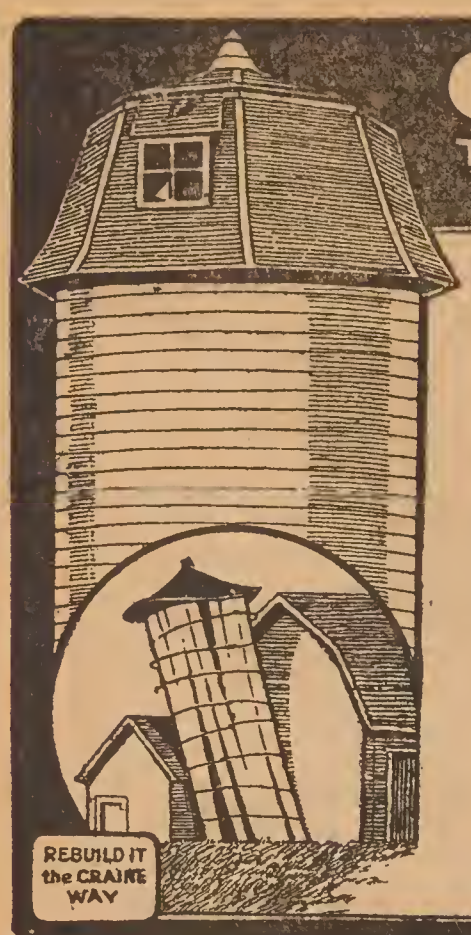

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NOW See What Jim Brown Has Done To Prices

Bigger Savings Than Ever
on Fencing, Gates, Posts, Paint, Roofing

(14) I've knocked the bottom out of prices. I'm breaking all records this year for overwhelming values. My FACTORY PRICES, FREIGHT PREPAID, means enormous savings for you. Quality, as always, the best in the world, backed by my ironclad GUARANTEE.

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Yes, I pay the freight. You pay only *factory prices*—I ship direct from my 3 big factories at Cleveland, Ohio, Adrian, Mich., and Memphis, Tenn., also from warehouses at Kansas City, Mo., and Davenport, Iowa.

Saved $58.43
"Received my order of fence promptly; am certainly well pleased with it. You saved me 10¾c per rod over local prices on woven Hog Fence and 75c per spool on barb wire making $58.43 saving in all."
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A "BLUE RIBBON" COUNTRY

CANADA

At the International Live Stock Show at Chicago, December, 1922, exhibits from CANADA were awarded the following prizes:

Grand Championship and First Prize for Hard Red Spring Wheat. In this class Canadian exhibits won 19 prizes out of a total of 25 awarded.

Grand Championship and First prize for Oats, winning 24 out of 35 prizes awarded.

First, 2nd, 3rd and 4th prizes for Peas, winning 4 out of 5 prizes awarded.

Grand Championship and First Prize for Rye; first prize for two-rowed Barley.

Grand Championship and Sweepstakes for Clydesdale Senior Stallion; 1st prize for Clydesdale 4 and 6 horse teams; 1st prize for Clydesdale Mares 3 years and under.

Championship for Galloway Steers; twelve 1st and 2nd prizes for Sheep. Many other prizes for Grains, Fodders and Live-stock.

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Which produces *better* grains, fodders and live stock than high priced lands elsewhere, *and produces them more abundantly,* may be the solution of *your* farm problem. Get the facts, with free books, maps, etc., and an order for reduced railway rates, direct from the Canadian Government by writing

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CONTAGIOUS ABORTION
Prevent this by using ABORNO. Easily administered by hypodermic syringe. Kills abortion germs quickly without harming cow. Write for booklet with letters from users and full details of Money-Back Guarantee.
ABORNO LABORATORY
11 Jeff St. Lancaster, Wis.

Hand vs. Machine Milking

Do Milking Machines Save Labor?—H. E. Babcock

WE have used milking machines for three years. During that period we have had little opportunity to check them against hand labor until this year. Now we feel that we have a pretty definite test of the machine against hand labor.

Last year we began to milk a bunch of grade Holsteins three times a day. These cows were by themselves on a farm where we could accommodate only one milker. Not knowing just what a man could stand in the way of hand milking heavy-producing cows three times a day we had to feel out the situation.

Accordingly we started off with twelve cows fed and milked at 5 A. M., 1 P. M., and 8 P. M. Handled in this way the cows averaged sixty pounds apiece. For the first few weeks our man handled the job very well and took care of some other stock besides.

Then he began to show signs of cracking. He overslept, or he had a headache. Plainly he was overworking and undersleeping. From one cause or another about that time we lost three cows from the bunch, reducing the number to nine head. This number our man handled without difficulty, and with the few other chores he did and the exacting schedule of feeding and care to which we held him, nine cows were about all he could well care for, milking by hand three times a day.

The kind of an udder to look for carried by a first prize winner at the New York State Fair. Equally adapted to easy machine or hand milking

One Man, Eighteen Cows

This fall we needed to produce more milk, so we started off with eighteen grade Holsteins, milked three times a day by one man using a milking machine. So far—and we have now had a three months' trial—we have found this combination practical.

Our man uses one double unit machine and with this machine he milks two cows while he strips two. Working in this way, it takes him no longer than it did last year to milk nine head by hand, and we are convinced that it does not take nearly so much out of him The cows are doing practically as well as last year, the entire herd having averaged 55 pounds a day production, and we have had no udder trouble.

Strange as it may seem, with the fatigue of hand milking removed, the herdsman has been able to care for the other nine head, including feeding, grooming and stable cleaning, about as easily as he cared for the twelve head last year.

Based on our experience to date, it would seem that one man using a milking machine can milk and care for eighteen cows three times a day about as comfortably as he can milk nine head by hand.

The Drawbacks

The biggest practical objection to the machine, as we use it, comes from the loss of indivdual production records. Without these the best feeding cannot be done. It is true we might use single unit machines, but if we did, we could not handle so many cows. We, of course, get the figures on the herd production and make an occasional check-up on individuals, but on the whole, machine milking becomes wholesale milking with the individual cow merged in the herd and her identity lost. And this, of course, is always objectionable.

CLEAN MILK WITH A MILKING MACHINE

I have read in the American Agriculturist that Dean Cook uses a milking machine in producing certified milk. We do not make certified milk, but we do keep our bacteria count below 10,000—oftentimes when our bottled milk is delivered the bacteria count is only 3,000 or 4,000—and we, too, use a machine.

I don't know what Dean Cook thinks about it, but from our experience we believe that altogether too much has been said of the comparative merits of machine and hand milking in obtaining a low bacteria count. If a machine is kept clean—and we know of no better way to keep it clean than to follow the advice of the College of Agriculture—it becomes an unimportant factor as far as bacteria count goes.

The real crux of the clean milk question is a clean, dry utensil, and a *quick* and thorough cooling. If these last two essentials are kept in mind half—yes, two-thirds—of the precautions and rules and regulations for producing clean milk, could well be forgotten.

In practice we strain our milk directly from the machine pails into 40-quart cans. These cans, after the usual washing and steaming, are always dried by inverting on a rack outdoors. As soon as a can is full, and in very hot weather before it is full, it is set in a tank of ice water, and the milk is then occasionally stirred until cool. Later it is bottled and the cases of bottles immersed in tanks of ice water with cracked ice shoveled over the tops of the cases.

Handled in this way, it is easy to deliver bottled milk with a bacteria count below 10,000. In fact, we have been doing it for three years now.

COOLING TANKS THAT WASTE ICE

Last winter, as usual, we filled two large ice houses with what we supposed would be ice enough to last us through the year. Early this fall we woke up to the fact that our supply of ice was practically exhausted.

When we began to buy and haul ice we soon found the expense and labor involved quite staggering. In our endeavor to eliminate the possibility of such an expense again, we had almost decided to build another ice house, when a chance visitor called our attention to our cooling tanks.

These were concrete vats sunk halfway in the ground, and with the rear side, a wall banked by earth after the manner of a bank barn. Apparently this sort of arrangement made an ideal conductor of heat, the warm earth back of the wall keeping it warm all summer in spite of our heroic and expensive efforts to keep it cool with ice on the other side.

Previous experiences with concrete cooling tanks had been quite satisfactory, but none of these had been banked by earth. As soon as we discovered what was taking the ice, we began to use wooden cooling tanks, and thereby cut our ice consumption by 50 per cent. Needless to say, we are through with concrete cooling tanks.

Feeding Ewes—An open winter may lead sheepmen to allow their flocks to depend too much upon pasturage for maintenance. Do not overlook the fact that the ewes will soon be lambing and should be sufficiently nourished to insure a proper milk flow. Supplement pasture with grain feed of corn, oats and bran. In the northern tier counties two parts buckwheat, three parts oats and one part bran or oil meal may be substituted.

League Announces Milk Prices for February

THE Dairymen's League Cooperative Association, Inc., has voted the following prices for the month of February, on the basic butter-fat test of 3 per cent, in the 201-210-mile freight zone, from New York City:

Class 1, for fluid consumption, $2.90.

Class 2, for cream or ice-cream, $2.50.

Class 3-A milk used chiefly in the manufacture of evaporated condensed and powd red milk—a differential has been voted at 59 cents per 100 above the price paid for milk going into the manufacture of butter (in Class 4). For Class 3-B milk used chiefly in the manufacture of hard cheese a 40-cent differential was voted.

Class 4 milk used chiefly in the manufacture of butter and American cheese was voted to be determined by New York market quotations of butter and cheese respectively.

January prices were reduced to $2.90 for class 1 and $2.50 for class 2, beginning January 16, due to seasonal increase and competitive conditions in the New York market. It is looked upon as the opening of another milk-price war.

Urge Extension of T B Work

(*Continued from page* 66)

pointed out that the period of depression had about ended and that the prospects were encouraging.

H. J. Henry, Bureau of Animal Industry, Department of Farms and Markets, gave an excellent review of the growth of the accredited herd plan in New York State. According to Mr. Henry, there are at present 12,000 herds, comprising 315,000 cows under State and Federal Supervision.

Henry Morgenthau, Jr., spoke on the present delay in compensating the farmer for his condemned cattle under the accredited herd plan. Mr. Morgenthau stated that as it is now, the breeder often has to wait from six to eighteen months before the State reimburses him, and that of the two million cattle in New York, only 315,000 are under Federal Supervision. Appropriation by the State of sufficient money to pay the farmer within 30 days after the cattle were slaughtered, would, according to the speaker, give such an impetus to the campaign to eradicate tuberculosis, that within five years the whole State of New York would have adopted the "area plan," with every cow in the State under Federal and State Supervision.

Moreover, Mr. Morgenthau said that he could prophesy, if this occurred, that the State would acquire such a reputation for healthy cattle, that the value of the pure breds would increase over 50 per cent. He also stated that this was a matter which interested not only the farmer, but also the cities, as every child in the State of New York should be entitled to receive milk from tuberculosis-free cattle. In closing, Mr. Morgenthau urged that the association go on record as requesting the administration to appropriate sufficient funds not only to pay up back debts, but also to carry on for at least six months in 1923.

Senator William Byrne of Albany County wound up the program by urging the farmers to make known their demands and seek to get what is rightfully theirs.

On the following day, January 17, a sale was held at which 73 head brought an average of $175 a head.

In the evening, the Onondaga Holstein Club gave a smoker to the State Association. At this meeting, the following very important resolutions were recommended by the pure-bred breeders and passed by the association.

WHEREAS, the eradication of tuberculosis is of vital importance to the pure-bred cattle industry,

WHEREAS, the work of eradication has been seriously handicapped by lack of sufficient State and Federal funds;

Therefore, be it resolved that we urge the legislature to make an emergency appropriation sufficient to pay all indemnities now due and that a sufficient amount also be appropriated to pay indemnities to July 1, 1923, and be it further resolved, that we endorse and commend the activities of the Bureau of Animal Industry in work of tuberculosis eradication and that the same be continued.

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Complete Feed Service

FOR ALL FARM ANIMALS AND POULTRY

THE G. L. F. is now manufacturing and will ship in any assortment, a complete line of public formula ready mixed rations for all farm animals and poultry. Each ration has been recommended by the feeding experts at the colleges of agriculture in the territory served by the G. L. F. They represent the very latest scientific and practical feeding knowledge.

Poultry Rations

G. L. F. Laying Mash

20% Protein—5.5% Fat—6% Fiber

400 lbs. Bran
200 " Flour Midds
200 " Standard Midds
250 " Corn Meal
230 " Hominy (white)
300 " Oats Gr. No. 2 white, 40 lbs.
250 " Meat Scrap 50-55%
150 " Dried Buttermilk
20 " Salt

2000 lbs.

1389.60 lbs. Digestible Nutrients

G. L. F. Coarse Scratch Grains

11.25% Protein—3.25% Fat—4% Fiber

700 lbs. Corn, Coarse Cracked
600 " Wheat
300 " Barley
200 " Oats, No. 2 White Clipped, 40 lbs.
100 " Milo and White Kaffir
100 " Buckwheat

2000 lbs.

1405.30 lbs. Digestible Nutrients

G. L. F. Growing Mash

19.75% Protein—5.25% Fat—5% Fiber

550 lbs. Wheat Bran
300 " Flour Middlings
350 " Corn Meal
290 " Hominy (white)
150 " Meat Scraps (fine)
150 " Dried Milk
100 " Dried Buttermilk
100 " Bone Meal
10 " Salt

2000 lbs.

1405.17 lbs. Digestible Nutrients

G. L. F. Fattening Mash

12.5% Protein—4.75% Fat—4% Fiber

1200 lbs. Corn Meal
600 " Flour Middlings
200 " Oats Clipped Re-Gr., 40 lbs.

2000 lbs.

1520.6 lbs. Digestible Nutrients

G. L. F. Chick Scratch Grains

11% Protein—3.75% Fat—3% Fiber

1000 lbs. Fine Cracked Corn (Kiln Dried)
600 " Cracked Wheat
200 " Cracked Milo Maize
200 " Steel Cut Oats

2000 lbs.

1617.40 lbs. Digestible Nutrients

G. L. F. Intermediate Scratch Grains

11% Protein—3.75% Fat—3.5% Fiber

1000 lbs. Medium Cracked Corn
600 " Wheat
200 " Milo Maize
200 " Oats, No. 2 White Clipped, 40 lbs.

2000 lbs.

1550.60 lbs. Digestible Nutrients

Milk Rations

G. L. F. Milk Maker

24% Protein—5% Fat—9% Fiber

200 lbs. Distillers Grains
500 " Gluten Feed
260 " Cottonseed Meal 43%
240 " Oil Meal O. P.
200 " Standard Wheat Bran
100 " Standard Wheat Middlings
160 " Yellow Hominy
100 " Ground Oats
100 " Cane Molasses
100 " Peanut Meal 40%
20 " Salt
20 " Calcium Carbonate

2000 lbs.

1506 lbs. Digestible Nutrients

G. L. F. Exchange Dairy

20% Protein—4.5% Fat—9% Fiber

100 lbs. Distillers Grains
360 " Standard Wheat Bran
260 " Yellow Hominy
200 " Ground Oats
440 " Gluten Feed
140 " Peanut Meal 40%
160 " Cottonseed Meal 43%
100 " Oil Meal O. P.
200 " Cane Molasses
20 " Salt
20 " Calcium Carbonate

2000 lbs.

1452 lbs. Digestible Nutrients

G. L. F. Sixteen Percent

16% Protein—4.5% Fat—9% Fiber

530 lbs. Yellow Hominy
280 " Ground Oats
300 " Standard Wheat Bran
300 " Standard Wheat Middlings
400 " Gluten Feed
50 " Oil Meal
100 " Cottonseed Meal 43%
20 " Salt
20 " Calcium Carbonate

2000 lbs.

1476 lbs. Digestible Nutrients

Feeding Rations

G. L. F. Young and Dry Stock Feed

13% Protein—3½% Fat—9% Fiber

480 lbs. Corn Meal
480 " Ground Oats
500 " Wheat Bran
200 " Oil Meal
200 " Molasses
100 " Alfalfa Meal
20 " Calcium Carbonate
20 " Salt

2000 lbs.

1369 lbs. Digestible Nutrients

G. L. F. Calf Meal

22% Protein—4% Fat—3½% Fiber

300 lbs. Oil Meal
200 " Barley *Malted*
440 " Red Dog
300 " Oat Flour
200 " Blood Flour
500 " Yellow Corn Meal
20 " Salt
20 " Prec. Cal. Carb.
20 " Prec. Bone Meal

2000 lbs.

1560 lbs. Digestible Nutrients

G. L. F. Horse Feed

10% Protein—3½% Fat—9% Fiber

780 lbs. Rolled No. 2 White Oats
800 " Cracked No. 2 Yelo. Corn
100 " Rolled Barley
100 " Alfalfa
200 " Molasses
20 " Salt

2000 lbs.

1483 lbs. Digestible Nutrients

G. L. F. Hog Feed

15% Protein—4% Fat—5% Fiber

1560 lbs. Corn Feed Meal
200 " Tankage
100 " Oil Meal
100 " Alfalfa Meal
20 " Calcium Carbonate
20 " Salt

2000 lbs.

1609 lbs. Digestible Nutrients

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BARRON—Young, laying Leghorns. EL BRITON FARM, R. 1, Hudson, N. Y.

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BERKSHIRE sows bred for April, farrow Pigs. EL BRITON FARM, R. 1, Hudson, N. Y.

Order Cars Early

A very good point was made recently by T. E. Cross, President of the New York State Horticultural Society. Mr. Cross, who has had long experience in shipping perishables, states that huge losses are sustained every year by shippers of perishable fruits and vegetables, because they fail to anticipate their refrigerator car requirements.

"When the members of a community order a large number of cars to be placed for loading on short notice to the carrier serving them, it is highly probable that these requests cannot all be filled. The result is that some of the produce must go to waste," says Mr. Cross. "During the summer of 1920, at a time when hundreds of carloads of choice peaches were rotting under the trees in western New York because of a shortage of refrigerator cars on the New York Central lines, peaches were selling at two and three dollars a bushel in New York City and were hard to get even at that figure. All this time there were hundreds of refrigerator cars on the sidetracks of the Pennsylvania lines, ordered by shippers of other produce and held there for shipments of later fruits and vegetables."

"Now had the peach producers anticipated their car requirements and placed their requests for same with the New York Central lines early, as did the shippers on the Pennsylvania, two calamities would have been averted: First, they could have marketed their peaches, which rotted for want of car supply; secondly, the consumers in New York City would not have been compelled to pay the exorbitant prices which were charged because of a scarcity of the fruit at that point."

This suggestion is brought to our attention by the newly established Traffic Bureau of the State under the direction of Francis W. Brown. This new bureau has its headquarters at Albany, and is ready and anxious to be called upon by the shippers of farm produce throughout the State. It is the belief of the Traffic Bureau that cooperation between the shipper and the railroad will eliminate trouble for both, and the offices of this new agency are anxious to give all possible sorts of service concerning express or freight rates, classification, claims, routes, etc., to the farmers of the State.

"$18.25 RECEIVED

The notation which the Service Bureau placed at the top of the correspondence regarding the case of Mr. Howard A. Wolfe, Gainesville, N. Y., is to the point—"$18.25 received."

Mr. Wolfe had shipped 73 pounds of broilers to a Rochester firm, but heard no further from the buyers. He wanted to pay collection costs, but since the Service Bureau makes no charge he extended his subscription for five years instead.

HURRYING UP A PREMIUM

A premium which had been held up for two months in spite of repeated requests that it be sent, finally reached the grandson of one of our subscribers three weeks ago. The boy had sold a dozen boxes of salve and had earned a premium for which he sent an additional sixty cents. Nothing further was heard from the chemical company until the complaint reached the Service Bureau of the American Agriculturist.

They took up the matter with the company, who claimed that the premiums had to be made at a nearby factory. In any event, the premium was shortly afterward sent to the boy, whose grandfather wrote to us that he believed it was due to the good offices of the Service Bureau that it ever came.

WORTHY OF SMALL PURCHASE

Financial Department:—Will you please let me know if the American Bond & Mortgage Company is a good and conservative company? —(W. H. B., Delhi, N. Y.

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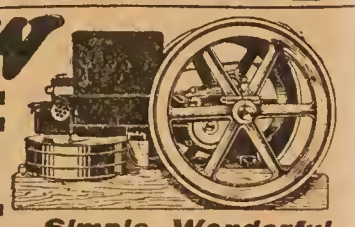

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Improving the Crystal Set

To "Tune Out" Interference of Undesired Stations

SOMETIMES a receiving outfit will be located near commercial and amateur stations from which considerable interference will be experienced. The simple equipment described in last week's American Agriculturist is suitable for open locations, although it is not sufficiently selective for city use, as a rule. In New York City there are broadcast programs being sent out on 360 and 400 meters at the same time, and builders of single coil sets have found it almost impossible to "tune out" or eliminate the unwanted station.

Should the builder of the set shown in Figure 1, shown in the American Agriculturist of January 20, be troubled by such interference, it is but a step to the arrangements of figure 3. The tuning coil, without any change, now becomes the "primary coil." It consists of a cardboard tube, such as an oatmeal container, measuring 3½ to 4 inches in diameter, tightly wound with a layer of No. 20 enamelled magnet wire for a length of 2½ inches. A spring brass arm is mounted on a brass angle to make continuous contact over a sandpapered arc on its surface.

A similar cardboard tube, about 3 inches long, although ½ inch smaller in diameter than the primary, is used for the "secondary." This is carefully wound with 45 turns of the same size enamelled wire, with the ends secured in small holes, punched at the extremities of the layer of wire. Flexible leads, such as is used for lamp cord, is employed to make connections from ends of the secondary. If a cardboard box, such as a salt container, is employed for the secondary, the cover may be left on, and the flexible leads brought through two holes in that. Figure 3 shows by dotted lines, the course of the flexible wires inside the secondary. This added coil makes it possible to get rid of or "tune out" undesired messages.

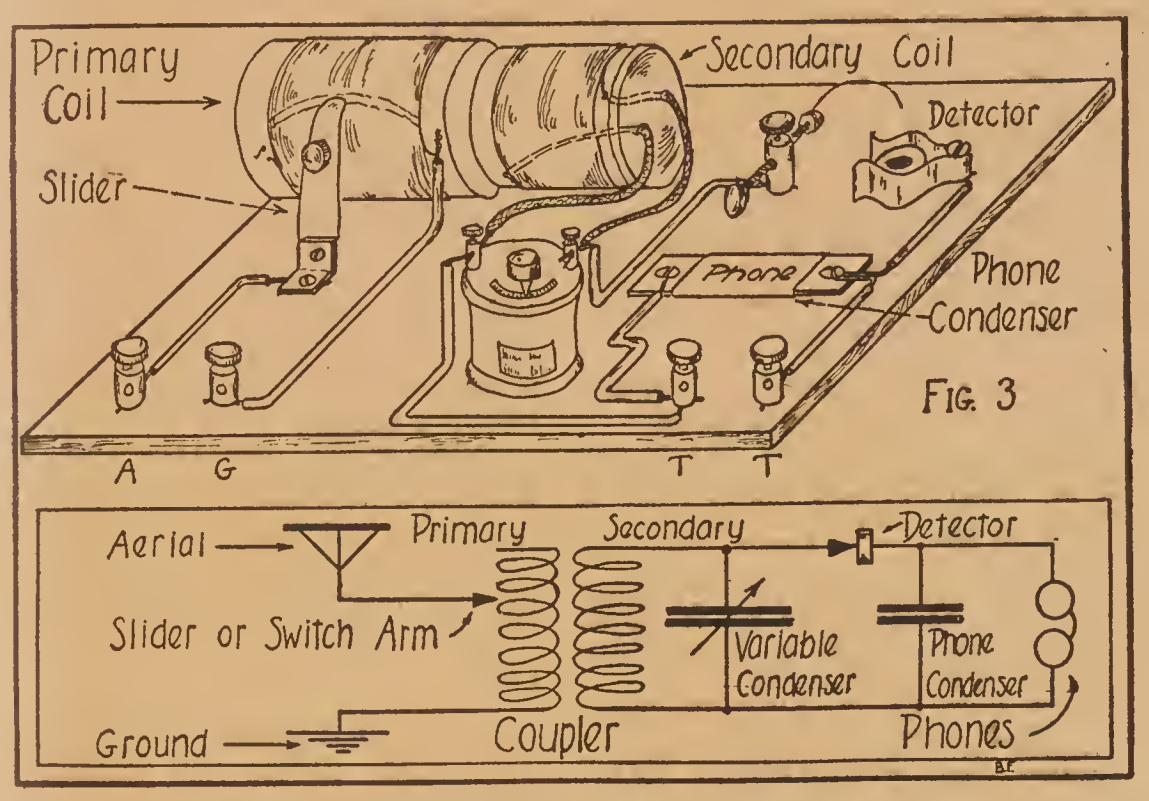

FIG. 3

Figure 3. A simple crystal set with secondary coil

The Variable Condenser

In addition to tuning the primary or aerial circuit with the slider, there must be some form of tuning the secondary. This is done with a variable condenser, an instrument having two sets of interleaving metal plates, one set movable by an exterior knob. The more the plates are interleaved, the greater is the capacity of the condenser, in just the same way as the capacity of the aerial increases when the aerial wires are brought near the ground.

Variable condensers are usually referred to as "23 plate" or "43 plate" although this is not a true indication of their electrical size. Capacity is measured by a unit called the "micro-farad." The condenser which should be used for tuning this particular secondary circuit should have an appoximate capacity of .0005 micro-farads. It may not look exactly like the one shown in figure 3, but it will have two binding posts which should be connected to the secondary and to the detecting circuit as indicated.

The remainder of the set is the same as the corresponding portion of figure 1. The mounted crystal is held in a spring clip which is screwed down to the wooden base, while the "cat-whisker" is held by a binding post and machine screw. The cat-whisker wire should be sharpened at its end, and it will be found that the proper pressure upon the crystal will vary with the nature of the mineral used. It is best to pay from 35 to 50 cents for this, since results depend largely upon its sensitivity. No. 18 bell wire is used for connections, with the insulation removed where contact is made. It is advisable to solder twisted joints to insure permanent contact. The phone condenser is supplied in various forms, and should have a capacity of about .001 micro-farads (mfds.).

Tuning the Two Circuit Set

The tuning of this two-circuit set is not complicated. First, the secondary coil is placed about half-way inside the primary. The variable condenser is set at about mid-scale, and the cat-whisker brought down upon the crystal in various spots to locate a sensitive place while the slider is varied. When a broadcasting station is picked up, the detector should be adjusted for maximum strength, and left. Next the secondary should be moved out of the primary—which operation is termed "loosening the coupling"—and both slider and variable condenser adjusted. Extreme selectivity will occur when the secondary is all the way out and perhaps turned at an angle to the primary. The strength will decrease somewhat, and an intermediate position is found which permits little interference and gives plenty of audibility or sound.

The lower portion of figure 3 is devoted to the schematic representation of the pictured set. Symbols used should be learned in relation to their actual appearance, for all the parts shown except the detector are included in the make-up of tube sets. Next week the vacuum tube will be introduced to the readers. It will be in a simple but effective form, with a total cost of about $20, and with a receiving radius that will often approach 1,000 miles.

When Buying Radio Supplies

When ordering radio supplies from mail order catalogs, or when purchasing from a radio dealer, it is always advisable to select parts made by a manufacturer who has sufficient faith in the quality of his goods to place his name on them. This is particularly true with the crystal, the condensers and the head telephones. The latter should be stamped with a resistance of at least 1,000 ohms per phone, and will cost from five to nine dollars. The sensitivity will vary somewhat in accordance with the price, and it is possible to secure unusually good ones for ten or twelve dollars. Since these latter instruments are used later on in more advanced outfits, it is certainly advisable to buy the best.— BRAINARD FOOTE.

Whatever else may fail

Linking city, village and farm, crossing mountain and wilderness, the telephone system challenges Nature in her strongholds and battles her fiercest moods.

Out on his lonely "beat" the telephone trouble-hunter braves the blizzard on snow-shoes, body bent against the wind, but eyes intent upon the wires.

North, south, east, west—in winter and summer, in forest and desert—the telephone workers guard the highways of communication. Traveling afoot where there are no roads, crawling sometimes on hands and knees, riding on burros, or motorcycles, or trucks, they "get there" as they can.

When Nature rages to that point where few things can stand against her, when property is destroyed and towns cut off, the telephone is needed more than ever. No cost is too much, no sacrifice too great, to keep the wires open. If telephone poles come down with the storm, no matter how distant they may be, no matter how difficult to reach, somehow a way is found, somehow—in blizzard, hurricane, or flood—the service is restored.

Whatever else may fail, the telephone service must not fail, if human effort can prevent it. This is the spirit of the Bell System.

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Universal Sales Co., 141 B'way, Desk 295, New York

The Valley of the Giants—*By Peter B. Kyne*

THE fight is on! Bryce Cardigan, son of the blind old pioneer of Sequoia takes up his father's battle against the unscrupulous Colonel Seth Pennington, a newcomer in the redwood country. In doing so, he sacrifices his starting friendship with Shirley Sumner, the Colonel's niece.

A visit to the rival camp to thrash Rondeau, a woods-boss who has felled a tree in the Valley of the Giants, old Cardigan's sacred grove where his wife lies buried, results in a free-for-all-fight unfairly incited by the Colonel, in which Shirley aids Bryce to escape. But she swears they must always be enemies.

After a visit to his own camp to discharge the drunken McTavish, Cardigan's old woods-boss, where he meets the beautiful Moira, Bryce boards the homebound logging train. Bryce suddenly realizes—the train is running away and that it rests with him to save Shirley and Pennington, riding in the caboose.

NEVERTHELESS he took them. Axe in hand, he leaped down to the narrow ledge formed by the bumper in front of the caboose—driving his face into the front of the caboose; and he only grasped the steel rod leading from the brake-chains to the wheel on the roof in time to avoid falling half stunned between the front of the caboose and the rear of the logging-truck. The caboose had once been a box-car; hence there was no railed front platform to which Bryce might have leaped in safety. Clinging perilously on the bumper, he reached with his foot, got his toe under the lever on the side, jerked it upward, and threw the pin out of the coupling; then with his free hand he swung the axe and drove the great steel jaws of the coupling apart.

The caboose was cut out! But already the deadly curve was in sight; in two minutes the first truck would reach it; and the caboose, though cut loose, had to be stopped, else with the headway it had gathered, it, too, would follow the logging-trucks to glory.

For a moment Bryce clung to the brake-rod, weak and dizzy. His chin was bruised, skinned, and bloody; his nose had been broken, and twin rivulets of blood ran from his nostrils. He wiped it away, swung his axe, drove the blade deep into the bumper and left it there with the haft quivering; turning, he climbed swiftly up the narrow iron ladder beside the brake-rod until he reached the roof; then, still on the ladder, he reached the brake-wheel and drew it promptly but gradually around until the wheel-blocks began to bite, when he exerted his tremendous strength to the utmost and with his knees braced against the front of the caboose, held the wheel.

The brake screamed, but the speed of the caboose was not appreciably slackened. "It's had too good a start!" Bryce moaned. "The momentum is more than I can overcome. Oh, Shirley, my love! God help you!"

He cast a sudden despairing look over his shoulder. He was winning, after all, for space of six feet now yawned between the end of the logging-truck and the bumper of the caboose. If he could but hold that tremendous strain for a quarter of a mile, he might get the demon caboose under control! Again he dug his knees into the front of the car and twisted on the wheel until it seemed that his muscles must crack.

After what seemed an eon of waiting, he ventured another look ahead. The rear logging-truck was a hundred yards in front of him now, and from the wheels of the caboose an odor of burning drifted up to him. "I've got your wheels locked!" he half sobbed. "I'll hold you yet, you brute. Slide! That's it! Slide, and flatten your infernal wheels. Hah! You're quitting—quitting. I'll have you in control before we reach the curve. Burn, curse you, burn!"

With a shriek of metal scraping metal, the head of the Juggernaut ahead took the curve, clung there an instant, and was catapulted out into space. Logs weighing twenty tons were flung about like kindling; one instant, Bryce could see them in the air; the next they had disappeared down the hillside. A deafening crash, a splash, a cloud of dust———

WITH a protesting squeal, the caboose came to the point where the logging-train had left the right of way, carrying rails and ties with it. The wheels on the side nearest the bank slid into the dirt first and plowed deep into the soil; the caboose came to an abrupt stop, trembled and rattled, overtopped its centre of gravity, and fell over against the cut-bank.

Bryce, still clinging to the brake, was braced for the shock and was not flung off. Calmly he descended the ladder, recovered the axe from the bumper, climbed back to the roof, tiptoed off the roof to the top of the bank and sat calmly down under a manzanita bush to await results. He was curious to see how Shirley Sumner would behave in an emergency.

Colonel Pennington was first to emerge at the rear of the caboose. He ran to the front of the car, looked down the track, and swore feelingly. Then he darted back to the rear.

"All clear, my dear," he called to Shirley. "Thank God, the caboose became uncoupled—guess that fool brakeman forgot to drop the pin. Come out, my dear."

Shirley came out, dry-eyed, but white and trembling. The Colonel placed his arm around her, and she hid her face on his shoulder. "There, there!" he soothed her affectionately. "It's all over, my dear.

"The train," she cried in a choking voice. "Where is it?"

"In little pieces—down in Mad River." He laughed happily. "And the logs weren't even mine! As for the trucks, they were a lot of ratty antiques and only fit to haul Cardigan's logs. About a hundred yards of roadbed ruined—that's the extent of my loss, for I'd charged off the trucks to profit and loss two years ago."

"Bryce Cardigan," she sobbed. "I saw him—he was riding a top log on the train. He—ah, God help him!"

The Colonel shook her with sudden ferocity. "Young Cardigan," he cried sharply. "Riding the logs? Are you certain?"

She nodded, and her shoulders shook piteously.

"Then Bryce Cardigan is gone!" Pennington's pronouncement was solemn. "No man could have rolled down into Mad River with a trainload of logs and survived. The devil himself couldn't." He heaved a great sigh, and added: "Well, that clears the atmosphere considerably, although for all his faults, I regret, for his father's sake, that this dreadful affair has happened. Don't cry, my dear. I know it's terrible, but—there, there, my love. Do brace up. Poor devil! For all his treatment of me, I wouldn't have had this happen for a million dollars."

SHIRLEY burst into wild weeping. Bryce's heart leaped, for he understood the reason for her grief. She had sent him away in anger to his death; it would be long before Shirley would forgive herself. The sight of her distress now was more than he could bear. He coughed slightly, and the alert Colonel glanced up at him instantly.

"Well, I'll be hanged!" The words fell from Pennington's lips with a heartiness that was almost touching. "I thought you'd gone with the train."

"Sorry to have disappointed you," Bryce replied blithely, "but I'm just naturally stubborn. Too bad about the atmosphere you thought cleared a moment ago! It's clogged worse than ever now."

At the sound of Bryce's voice, Shirley raised her head, whirled and looked up at him. He held his handkerchief over his gory face that the sight might not distress her; he could have whooped with delight at the joy that flashed through her wet lids.

"Bryce Cardigan," she commanded sternly, "come down here this instant."

"I'm not a pretty sight, Shirley. Better let me go about my business."

She stamped her foot. "Come here!"

"Well, since you insist," he replied, and he slid down the bank.

"How did you get up there—and what do you mean by hiding there spying on me, you—you—oh, *you!*"

"Cuss a little, if it will help you," he suggested. "I had to get out of your way—out of your sight—and up there was the best place. I was on the roof of the caboose when it toppled over, so all I had to do was step ashore and sit down."

"Then why didn't you stay there?" she demanded furiously.

"You wouldn't let me," he answered demurely. "And when I saw you weeping because I was supposed to be with the angels, I couldn't help coughing to let you know I was still hanging around, ornery as a book-agent."

"How did you ruin your face, Mr. Cardigan?"

"Tried to take a cast of the front end of the caboose in my classic countenance—that's all."

"But you were riding the top log on the last truck———"

"Certainly, but I wasn't hayseed enough to stay there until we struck this curve. I knew what was going to happen, so I climbed down to the bumper of the caboose, uncoupled it from the truck, climbed up on the roof, and managed to get the old thing under control with the hand-brake; then I skedaddled up into the brush because I knew you were inside, and——— By the way, Colonel Pennington, here is your axe, which I borrowed this afternoon. Much obliged for its use. The last up-train is probably waiting on the siding at Freshwater to pass the late lamented; consequently a walk of about a mile will bring you a means of transportation back to Sequoia. As for myself, I'm in a hurry, and my room is more to be desired than my company, so I'll start now."

HE lifted his hat, turned, and walked briskly down the ruined track.

Shirley half opened her lips to call him back, thought better of it, and let him go. When he was out of sight, it dawned on her that he had risked his life to save hers.

"Uncle Seth," she said soberly, "what would have happened to us if Bryce Cardigan had not come up here to-day to thrash your woods-boss?"

"We'd both be in Kingdom Come now," he answered truthfully.

"Under the circumstances, then," Shirley continued, "suppose we all agree to forget that anything unusual happened to-day——"

"I bear the young man no ill will, Shirley, but before you permit yourself to be carried away by the splendor of his action, it might be well to remember that his own precious hide was at stake also."

"No, he would not," she insisted, for the thought that he had done it for her sake was very sweet to her and would persist. "Cooped up in the caboose, we did not know the train was running away until it was too late to jump, while Bryce Cardigan, out on the logs, must have known it almost immediately. He would have had time to jump before the runaway gathered too much headway—and he would have jumped, Uncle Seth, for his father's sake."

"Well, he certainly didn't stay for mine, Shirley."

She blushed furiously. "Uncle Seth," she pleaded, "let's be friends with Bryce Cardigan; let's get together and agree on an equitable contract for freighting his logs over our road."

"You are now," he replied severely, "mixing sentiment and business; if you persist, the result will be chaos. Cardigan has in a large measure squared himself for his ruffianly conduct earlier in the day, and I'll forgive him and treat him with courtesy hereafter; but I want you to understand, Shirley, that does not constitute a license for that fellow to crawl up in my lap and be petted. He is practically a pauper now, and you'll please me greatly by leaving him severely alone."

"I'll not do that," she answered with a quiet finality that caused her uncle to favor her with a quick glance.

He need not have worried, however, for Bryce Cardigan had embarked upon a war—a war which he meant to fight to a finish.

CHAPTER XVIII

GEORGE SEA OTTER, summoned by telephone, came out to Freshwater, the station nearest the wreck, and transported his battered young master back to Sequoia. Here Bryce sought the doctor in the company's little hospital and had his wrecked nose reorganized and his cuts bandaged. It was characteristic that when this detail had been attended to, he should go to the office and work until the six o'clock whistle blew.

Old Cardigan was waiting for him at the gate when he reached home. George Sea Otter had already given the old man a more or less garbled account of the runaway log-train, and Cardigan was eager to ascertain the details of this new disaster. The loss of the logs was trifling—perhaps three or four thousand dollars; the destruction of the rolling-stock was the crowning misfortune. Both Cardigans knew that Pennington would eagerly seize upon this point to stint his competitor still further on logging-equipment, that there would be delays—apparently unavoidable—before this lost rolling-stock would be replaced. And in the interim the Cardigan mill, unable to get a sufficient supply of logs to fill orders in hand, would be forced to close down.

"Well, son," said John Cardigan mildly as Bryce unlatched the gate, "another bump, eh?"

"Yes, sir—right on the nose."

"I meant another bump to your heritage, my son."

"I'm not worrying about my heritage at all. I've come to a decision: We're going to fight and we're going down fighting. I started the fight this afternoon. I whaled the wadding out of that bucko woods-boss of Pennington's. Even went so far as to muss the Colonel up a little."

"Wow, Bryce! Bully for you! That man Rondeau has terrorized our woodsmen for a long time. He's king of the mad-train, you know."

Bryce was relieved. His father did not know, then, of the act of vandalism in the Valley of the Giants.

Arm in arm they walked up the garden path together.

JUST as they entered the house, the telephone in the hall tinkled, and Bryce answered.

"Mr. Cardigan," came Shirley Sumner's voice over the wire.

"Bryce," he corrected her.

She ignored the correction.

"I—I don't know what to say to you," she faltered.

"There is no necessity for saying anything, Shirley."

"But you saved our lives, and at least have a right to expect an acknowledgment. I rang up to tell you how splendid and heroic your action was———"

"I had my own life to save, Shirley."

"You did not think of that at the time."

"Well—I didn't think of your uncle's, either," he replied without enthusiasm.

"I'm sure we never can hope to catch even with you, Mr. Cardigan."

"Don't try. Your revered relative will not; so why should you?"

"You are making it somewhat hard for me to—to—rehabilitate our friendship, Mr. Cardigan. We have just passed through a most extraordinary day, and I think you ought to do your share—and help."

"Bless your heart," he murmured. "The very fact that you rang me up at all makes me your debtor. Shirley, can you stand some plain speaking—between friends, I mean?"

"I think so."

"WELL, then," said Bryce, "listen to this: I am your uncle's enemy until death do us part. I'm going to smash him if I can."

"If you do, you smash me," she warned him.

"Likewise our friendship. I'm sorry, but it's got to be done if I can do it. Shall—shall we say good-bye, Shirley?"

"Yes-s-s!" There was a break in her voice. "Good-bye, Mr. Cardigan."

"Good-bye! Well," he murmured *sotto voce*, "there goes another bright day-dream." Unknown to himself, he spoke directly into the transmitter, and Shirley, clinging half hopefully to the receiver at the other end of the wire, heard him—caught every inflection of

the words, freighted with the pathos of Bryce's first real tragedy.

"Oh, Bryce!" she cried sharply. But he had hung up his receiver now.

The week that ensued was remarkable for the amount of work Bryce accomplished, also for a visit from Donald McTavish, the woods-boss. Bryce found him sitting in the private office one morning.

"Hello, McTavish," he saluted the woods-boss cheerfully and extended his hand for a cordial greeting. His wayward employee stood up, took the proffered hand in both of his huge and callous ones.

"Weel! 'Tis the wee laddie hissel'," he boomed. "I'm glad to see ye, boy."

"You'd have seen me the day before yesterday—if you had been seeable," Bryce reminded him with a bright smile.

"I'll nae deny I take a wee drappie now an' then," the woods-boss admitted frankly, albeit there was a harried, hangdog look in his eyes.

Bryce sat down at his desk, lighted his pipe, and looked McTavish over soberly. The woods-boss was a big, raw-boned Scotchman, with a plentiful sprinkling of silver in his thick mane of red hair. A tremendous nose rose majestically out of a strong and rugged face; his long arms hung, gorilla-like, almost to his knees. Though in the late fifties, his years had touched him lightly; but John Barleycorn had not been so considerate. Bryce noted that McTavish was carrying some thirty pounds of whiskey fat and that the pupils of his fierce blue eyes were permanently distended, showing that alcohol had begun to affect his brain. His hands trembled as he stood before Bryce, smiling fatuously and plucking at the cuffs of his mackinaw.

"Mac, did Moira give you my message?"

"Aye."

"Well, I guess we understand each other, Mac. Was there something else you wanted to see me about?"

McTavish sidled up to the desk. "Ye'll no be firin' auld Mac oot o' hand?" he pleaded hopefuly. "Mon, ha ye the heart to do it—after a' these years?"

Bryce nodded. "If you have the heart—after all these years—to draw pay you do not earn, then I have the heart to put a better man in your place."

"Ye was ever a laddie to hae your bit joke."

"It's no good arguing, Mac. You're off the pay-roll onto the pension-roll—your shanty in the woods, your meals at the camp kitchen, your clothing and tobacco that I send out to you. Neither more nor less!" He reached into his desk and drew forth a check. "Here's your wages to the fifteenth. It's the last Cardigan check you'll ever finger. I'm terribly sorry, but I'm terribly in earnest."

"Who will ye pit in ma place?"

"I don't know. However, it won't be a difficult task to find a better man than you."

"I'll nae let him work." McTavish's voice deepened to a growl.

"You worked that racket on my father. Try it on me, and you'll answer to me—personally. Lay the weight of your finger on your successor, Mac, and you'll die in the county poor-farm."

McTavish's glance met the youthful master's for several seconds; then the woods-boss trembled, and his gaze sought the office floor. Bryce knew he had his man whipped at last, and McTavish realized it, too, for quite suddenly he burst into tears.

"Dinna fire me, lad," he pleaded. "I'll gae back on the job an' leave whusky alone."

"Nothing doing, Mac. Leave whiskey alone for a year and I'll give you back your job. For the present, however, you're discharged.

"Who kens the Cardigan woods as I ken them?" McTavish blubbered. "Who'll swamp a road into timber sixty per cent clear when the mill's runnin' on foreign orders an' the owd man's calling for clear logs? Who'll fell trees wi' the least amount o' breakage? Who'll——"

"Don't plead, Mac," Bryce interrupted gently. "You're quite through, and I can't waste any more time on you."

"Ye dinna mean it, lad. Ye canna mean it."

"On your way, Mac. I loathe arguments. And don't forget your check."

"I maun see yer faither aboot this. He'll nae stand for sic treatment."

Bryce's temper flared up. "You keep away from my father. If you go up to the house to annoy him with your pleadings, McTavish, I'll manhandle you." He glanced at his watch. "The next train leaves for the woods in twenty minutes. If you do not go back on it and behave yourself, you can never go back to Cardigan woods."

"I will nae take charity from any man," McTavish thundered. I'll nae go back to yon woods to live on yer bounty."

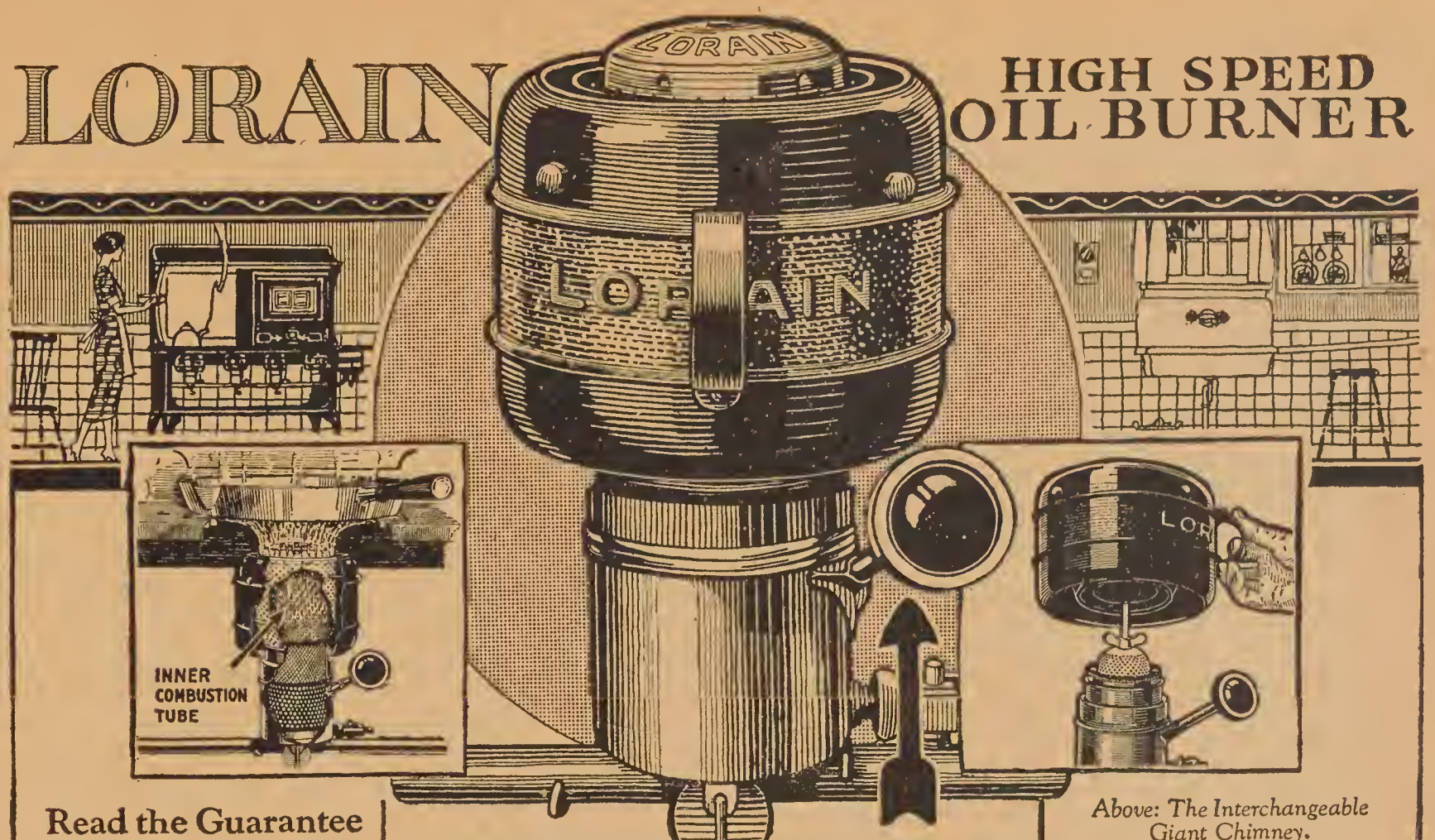
"Well, go somewhere, Mac, and be quick about it. Only—when you've reformed, come back. You'll be mighty welcome. Until then, however, you're as popular with me—that is, in a business way—as a wet dog."

"Ye're nae the man yer faither was," the woods-boss half sobbed. "Ye hae a heart o' stone."

(*Continned next week*)

I am an old subscriber to the American Agriculturist, and I must say it is the best farm paper there is. I have received many farm papers and have dropped most of them. But I am going to stick to the American Agriculturist simply because it is the best paper.—VICTOR NEUENDORF, Erie County, N. Y.

LORAIN HIGH SPEED OIL BURNER



Above: The Interchangeable Giant Chimney.

Read the Guarantee Now Given on the Lorain Burner

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Guarantee *Should the inner combustion tube of the Lorain High Speed Oil Burner burn out within 10 years from date of purchase, replacement will be made entirely free of charge.*

READ the Lorain Burner GUARANTEE

LOOK for the RED WHEEL

About Oil Stoves

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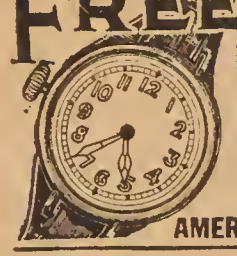

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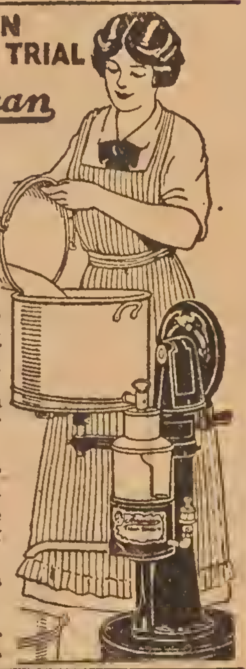

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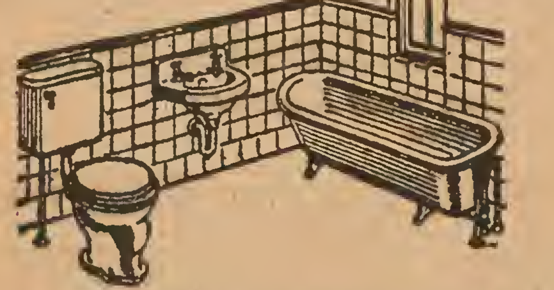

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A successful party for grown-ups, as well as for children, requires planning out on the part of the hostess of the whole evening's events. She should have in mind just what to do next, what form of entertainment to start when the lull begins. One country hostess who is beloved for the good times everyone has at her house recently gave with marked success a chestnut party, and while everything moved with gay spontaneity, there was a lot of real planning back of the evening's informal events. In the first place, she specified in her invitations that her guests were to come prepared to sing, recite or relate some "old chestnut"; and they came with such songs as "My Bonnie Lies Over the Ocean" and "Old Black Joe," with such recitations as "Curfew Shall Not Ring To-night" and "The Polish Boy," and an infinite number of ancient jokes. The hostess had written down for her own guidance a number of old-fashioned games, such as "Going to Jerusalem," "Fruit Basket," "Hiding the Thimble"—in this case a chestnut—and "Gossip." In this latter game the guests sit in a circle or in a row, and the leader whispers in a low tone and very quickly a piece of gossip to his next neighbor, who in turn whispers it to the next, and so on down the line. The last person tells out loud what has come to his ears, and then the leader repeats her original statement. These are usually totally different.

Refreshments of the cider and gingerbread type were served, and the chestnuts were roasted at the grate. The festivities came to a close with the singing of old-fashioned songs.—GLADYS S. JOHNSON.

JANUARY IS THE MONTH FOR MAKING UNDERCLOTHES

In the city, "White Sales" are on, and everyone is making underthings to replenish run-down wardrobes. The patterns shown this week include almost every undergarment a home dressmaker could make, and so much more reasonable are the home-made clothes—to say nothing of their better wearing qualities—that our advice is to order all four patterns and start right in!

Our spring catalogue is ready. See last paragraph.

9182

The new style combination, like the "athletic" undergarments which have become so popular, is shown in 9182. This can be cut with the square neck which is so much the prettier when worn with white waists or thin dresses.

No. 9182 cuts in sizes 36, 40 and 44 inches bust measure. Size 36 requires 2¼ yards 36-inch material with 3¾ yards edging and 2¼ yards ribbon. Price 12 cents.

9045

To the left a high-necked, long-sleeved nightgown with a novel pajama coat, style of collarless neck and opening. Delightfully warm in flannelette or suitable for thinner materials.

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A substitute for a corset, which has the snug-fitting brassiere effect and also gives a slightly fitted, but pliable, front and back support and garter attachment, is made from this combination pattern. It is extremely comfortable, yet holds the figure trimly.

No. 1602 cuts in sizes 34, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. Size 36 requires ¾ yard 36-inch material. Price 12 cents.

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No. 9805 cuts in sizes 24, 28, 32 and 36 inches waist measure. Size 28 requires 2¼ yards 36-inch material. Price 12 cents.

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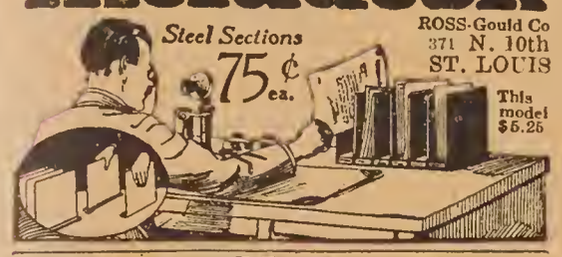

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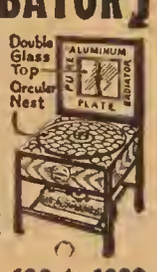

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NOT all women know how to wash chamois skins (face cloth). A good grade chamois will always be as soft and as clean as new, if it is washed in heavy suds from a mild, pure soap, and also rinsed in heavy soap suds. This is true, too, of washable doeskin gloves and of all woolen gloves, mittens and wristlets. The rinsing in clear water which they usually receive makes them harsh and stiff.

* * *

To protect the knees of a creeping child's stockings to save darning, cut tops from old long kid gloves and fasten over stockings to same supporter. One pair will outlast a child's creeping stage and save many pairs of stockings.—MRS. BLANCHE FUNK, Mo.

* * *

Do all housekeepers know that if you boil potatoes 15 minutes, then bake, they will bake in half the time? This holds true for apples also.

Do you know that if you first wet the meal for mush and stir it smooth, you can then add it to the boiling salted water, and it will not lump and cook quicker?—MRS. IDA A. BROWN, N. Y.

* * *

This is the time of year when our sweet potatoes are better baked. As a rule, the housewife finds her potatoes tough and dry and choky. To avoid this, wash the potatoes thoroughly and brush with butter or some fresh bacon grease and pour about one-half cupful water in the pan they are baked in. The potatoes will be soft and juicy.

* * *

Oftentimes the housewife goes to her kitchen and finds she failed to save enough buttermilk to make her much-liked soda biscuit. If she has a lemon in the house, she will find her way out by using the same amount of soda as she would were she using buttermilk, and squeezing about a teaspoonful of lemon juice in the water or sweet milk. —MRS. M. W. FISKE, Tenn.

* * *

Instead of basting long seams, fasten with wire clips such as are used for fastening papers. They are better than pins, for they will not work loose.

* * *

Aprons for little girls are easily made by using twice the length of cloth and rounding out for neck. On each side lay tucks to fit the shoulders. It may be gathered to fit closely at waist or left loose. I prefer the latter. When sides are sewed and bottom hemmed, you have an apron that is exactly alike on both sides and can be worn either way. If desired, the neck may be trimmed. Of course, the armholes should be cut out a little.

* * *

The obstinate earache from which children suffer so much is often relieved by filling a flannel bag with hops and steaming until thoroughly heated. Bind on as hot as can be borne and nine times out of ten the youngster will soon be asleep.—MRS. GEORGE GRAY,

* * *

Many a discarded old stove, with the right care, would be good for many years yet. Keep the outside of your stove clean and rub while warm with a cloth containing paraffin wax. This will prevent the stove from rusting. Keep the ashpan empty, because full ashpans mean burnt-out grates. Try cleaning out your flues by burning your cast-off fruit jar lids in your stove. The zinc in the lids burns out the creosote.

* * *

If you have trouble keeping the chocolate from running off your chocolate drops, add two teaspoonfuls of melted paraffin to each bar of chocolate. Blend the paraffin and chocolate well before dipping the fondant.—MRS. NELLIE MARQUAND, Nebraska.

* * *

Instead of standing to do all your work, use a high stool. Have it regulated to your own height so that you can rest your feet on the lower rungs. The stool will come in handy doing the dishes, ironing, dressing fowls, mixing bread, cake, cookies and dozens of other uses will be found daily. Its use will save much backache and aching feet and limbs and will keep you from feeling so "tired out" all the time.—CLARICE RAYMOND.

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Reviewing the Latest Eastern Markets

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold in the week ending January 18:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
Hennery, whites, extra fancy	50@51	......	......
Extra first	48@49	45@47	44½
Firsts	46@47	......	42½
Gathered, whites, first to extra firsts	46@49	......	......
Lower grades	40@45	......	......
Hennery browns, extra fancy	47@49	......	......
Gathered browns and mixed colors, extra fancy	40@46	44@45	......
Extra first	......	......	......
Pullets	35@38	41@43	......
Butter (cents per pound)			
Creamery (salted) high score	52½@53	......	......
Extra (92 score)	51½@52	54@55	52½
State dairy (salted), fine to fancy	45 @50	51@52	......
Good to prime	37 @44	43@50	......
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$21@22	$19@20	$22@23
Timothy No. 3	19@20	......	18@20
U. S. Sample	13@16	......	......
Fancy light clover mixed	22@23	......	21@22
Oat straw No. 1	16@17	......	12.50@13
Rye straw No. 1	24@25	......	......
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	27	26@28	27@28
Fowls, leghorns, fancy, heavy	20@22	18@22	20@26
Chickens, colored, fancy, heavy	21@22	24@26	26@27
Roosters	14	17@18	17@18
Live Stock (cents per pound)			
Calves, good to medium	13 @15	......	......
Bulls, common to good	2½@ 4	......	......
Lambs, common to good	11 @15	8 @15	......
Sheep, common to good ewes	3½@ 5½	......	......
Hogs, Yorkers	9¼@ 9¾	8¾@ 9½	......

EGG PRICES DROP WITH HEAVY RECEIPTS

IN the last week eggs in the New York market dropped to the lowest price they have reached in five months. The break came at about the same time this year as last, owing to mild weather and heavy receipts. The weekly receipts at New York jumped to 34,689 cases last week, as compared with 28,174 in the week previous. Last week's receipts were 11,000 cases in excess of the corresponding week last year.

Nearby white eggs, of which supply has increased considerably, were affected by the slump, and declined along with Pacific Coast whites and other eggs.

The market was so weak that dealers were compelled to hold many express shipments on their floors for a week or more in order to avoid sacrificing them at low prices. The greater part of the receipts from nearby sections are still of mixed sizes and neglected by the most particular trade. The bottom prices of last week were reached on January 16 and 17, when nearby hennery extra firsts were quoted at 45 to 47c. On January 18 the market became firmer and prices recovered 2c per doz.

The market for storage eggs was affected by the decline in fresh stock. Very few storage eggs were fine enough to sell at a price higher than 32c per doz. There are about 10,000 cases on hand in cold storage in New York at the present time in excess of the amount on hand last year. Most of the storage eggs are offered at 28 to 31c.

A comparison of prices on nearby eggs on January 18, 1923, with the same date last year shows about 1c per doz. higher quotations this year than last on hennery whites, and about the same price on gathered whites and pullets.

Butter Market Weakens Again

After the advance and firmer market reported here last week, butter prices started downward again. Creamery prices on January 18 were 2c lower than a week before. Buyers held off on this declining market. Prices are still 15c higher than last year, which probably causes a decreased consumption. There is quite an accumulation of fresh butter in the market. A steamer arrived from Denmark with 3,100 casks of Danish creamery and 1,100 boxes of unsalted came in from Argentine. The Danish butter sold at 51 to 52c, duty paid. Storage stocks of creamery butter have been considerably reduced, and the trade has gradually shifted to fresh. The market has been overstocked with unsalted creamery, and there is an accumulation of receipts in the market.

Trading in cheese continues quiet, but the market has developed a firmer tone since the first of the year. Up-State New York cheese is not coming to this market for sale at present, and there have been very small receipts of Wisconsin cheese. The immediate prospect is for a strong market. The wholesale prices on January 18 showed very little change from the week previous. State whole milk, average run, 27½ @ 28c; single daisies, held, 27½ @ 28½c; State skims, held, 21½ @ 22c; fresh, 20 @ 21c; Young Americas, held, 28 @ 28½c.

Stronger Market for Barreled Apples

The cold weather of last week seemed to bring a more active demand for barreled apples. Under lighter receipts the market became stronger and prices on January 18 were as follows:

VARIETY	Best	Fancy	Ordinary
Greenings	$4.50@4.75	$5	$4 @4.25
Baldwin	4.25@4.50	$4.75@5	4
Hubbardston	3.50@3.75	4	3 @3.25
King	4 @4.50	4.75@5	3.50@3.75
McIntosh	8 @8.50	9 @9.50	7 @7.50

In Rochester section demand is reported moderate and market steady, with following prices on bbls., A, 2½ in.: Greenings, best, $4.25 @ 4.50; Baldwins, $4.25 @ 4.50; Wagoners, $4.25; Spitzenburgs, ordinary condition, $4.

Potato Market Steadier

There was what is called a "better feeling" in the potato market last week. This means that buyers are more active and ready to buy and prices are firmer. The railroad yards where potatoes are received were beginning to clean up some of the accumulation and the prospect is for a better market, with only slight advances in price, if any. A car shortage in Maine is cutting down receipts from that State. Many shipments received last week were frozen and badly damaged.

States, in 150-lb. sacks, sold at $2 @ 2.10; bulk, per 180 lbs., No. 1 round white mostly at $2.00 to 2.50. Farmers up-State are receiving 40 to 45c per bu., few 50c per bu. The market on Long Islands is steady at 90c per bu. to farmers.

Cabbage Meets Steady Market

Danish variety cabbage continues to sell at $25 per ton, with a steady demand and light supplies. At this time last year it was quoted at $48 to $60 per ton. Carlot shipments of cabbage for the entire country to January 13 were 35,772 cars, compared with 28,339 the same date last year, and a total for all of last season of only 31,000 cars.

It would seem advisable for those who still have cabbage on hand to market it at present prices before shipments of new Southern cabbage become heavy. Last year the shipments of new cabbage up to the middle of January were nearly 3 times what they have been so far this season.

Heavy Fowls in Demand

Although receipts of fresh-killed poultry continue liberal, there is no surplus of the desirable grades of dressed fowls. The bulk of the receipts are chickens which are hard meated and staggy, and bring irregular prices. Dry-picked fowls, 5 lbs. and over, in bbls. brought 31 @ 32c per lb.; 4 lbs. weight, 30c; roasting chickens, dry picked, 4 to 6 lbs. weight and over, brought 34 @ 36c per lb; 3½ lbs. and under, 24 @ 30c. Capons are in fair demand, selling at 33 @ 40c per lb. for 5 to 8 lbs. weight. Young guinea hens, 4 to 5 lbs. weight, sell at $1.75 per pair; 3 to 4 lbs., $1.50; old guinea fowls, 75 @ 90c.

Country Dressed Calves Find Firm Market

Receipts of country-dressed calves at New York were very light last week, and although the demand was not heavy, the market continued firm. Fresh, choice calves brought 20 to 21c per lb.; prime, 18 @ 19c; good, 16 @ 17c; poorer sorts, 9 @ 15c. Country-dressed pigs were not in demand; white-skinned roasting, 10 to 19 lbs., weight, brought 25 @ 30c per lb.; 16 to 40 lbs., 15 @ 16c; heavier weights down as low as 8c. Only fancy hot-house lambs are in good demand at 12 @ 14c; other dressed lambs, prime, per cwt., bring $15.25 @ 15.50; common to good, $11.75 @ 15.

Hay Market Continues Weak

At time of writing this report, the New York hay market was weak, and prices very irregular, with slow trading and only very best qualities getting outside quotations.

Alfalfa, per ton, second cutting, No. 1, $26 @ 27; No. 2, $24 @ 25. U. S. heavy clover, mixed (not more than 65 per cent clover), No. 1, $19 @ 20.

Feed Market Dull

There was very little change last week in the Buffalo feed market. Cottonseed meal, 36 per cent, advanced $1 per ton. Both standard spring bran and hard winter bran showed slight advances, while standard spring middlings declined a little. Prices on carlots f. o. b. Buffalo in 100-lb. sacks, January 17, were: Gluten feed, $46.25 @ 47; cottonsed meal, 36 per cent, $48 @ 48.50; cottonsed meal, 43 per cent, $54.25 @ 54.75; oil meal, 33 to 34 per cent, local billed, $54.50 @ 55; dried brewers' grains (nominal), $49 @ 50; standard spring bran, $32 @ 32.25; hard winter bran, $32.50 @ 32.75; standard spring middlings, $32.75@33; choice flour middlings, $34.75 @ 35.25; white hominy, $35.80 @ 36.30. Per bushel, No. 2 yellow corn, new, 83½c; No. 3, 82c; No. 2 white oats, new, 51½c; No. 3, 49½c.

The following were the cash grain quotations per bushel at New York: No. 2 red wheat, $1.34; No. 2 hard winter, $1.32½; No. 2 yellow corn, 91¼c; No. 2 mixed corn, 90¾c; No. 2 white oats, 56c; No. 3 white oats, 54½ @ 55c; rye for export, $1.01½; barley for malting, 80 @ 82c. At Chicago: No. 2 white corn, 73 @ 73¾c; No. 2 yellow corn, 73 @ 73¾c; No. 2 white oats, 45 @ 46c; barley, 58 @ 63c; rye, 88¼c.

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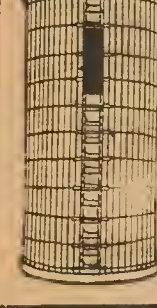

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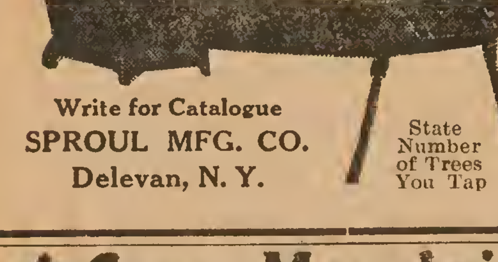

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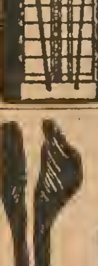

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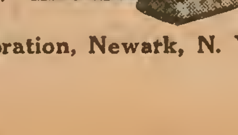

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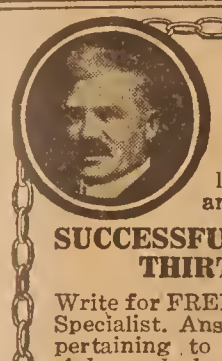

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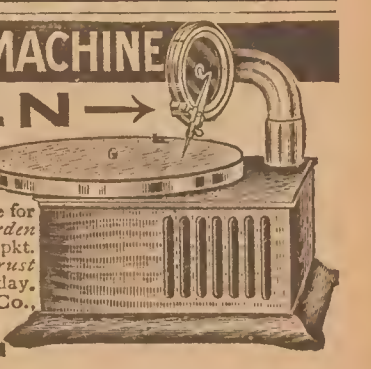

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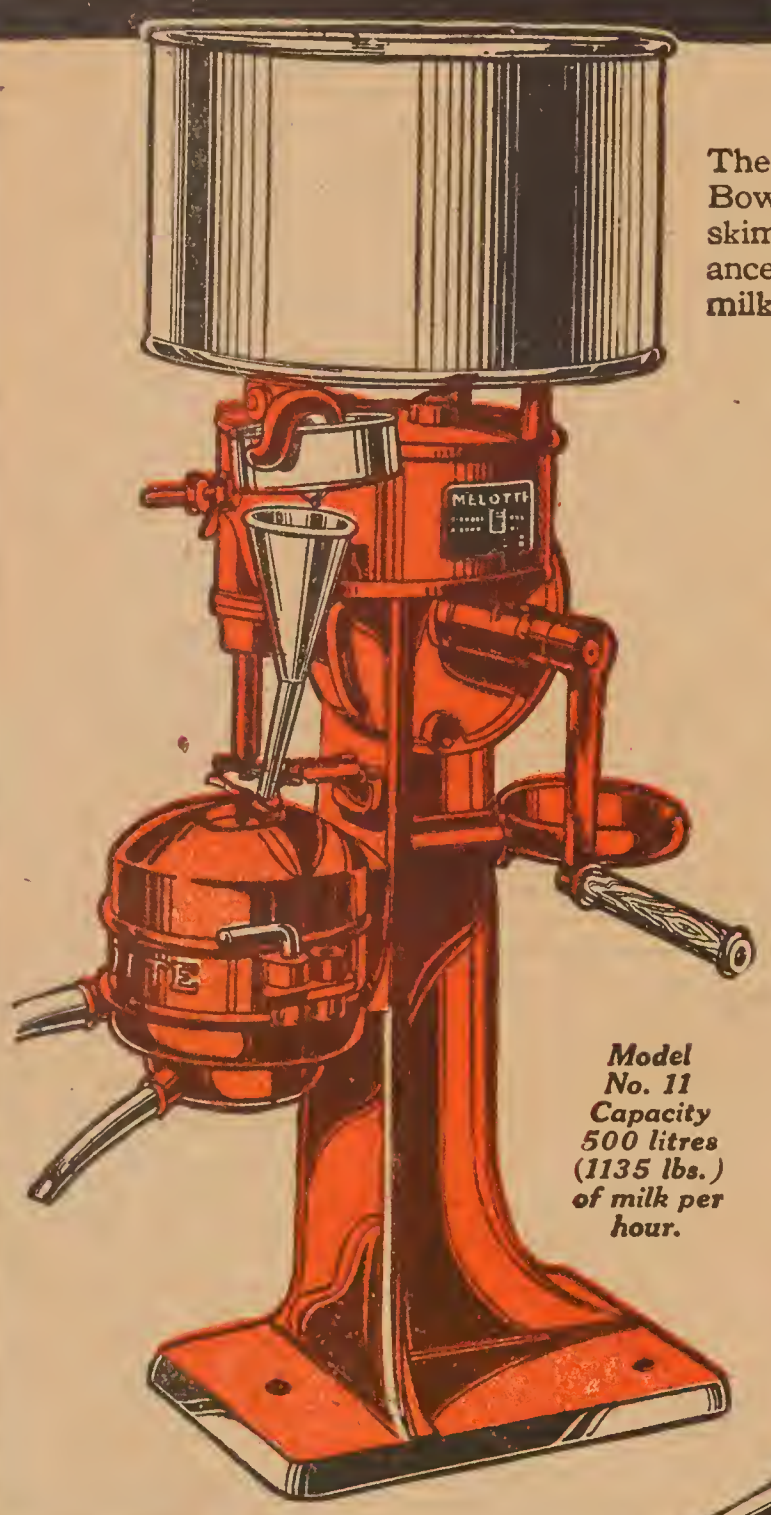

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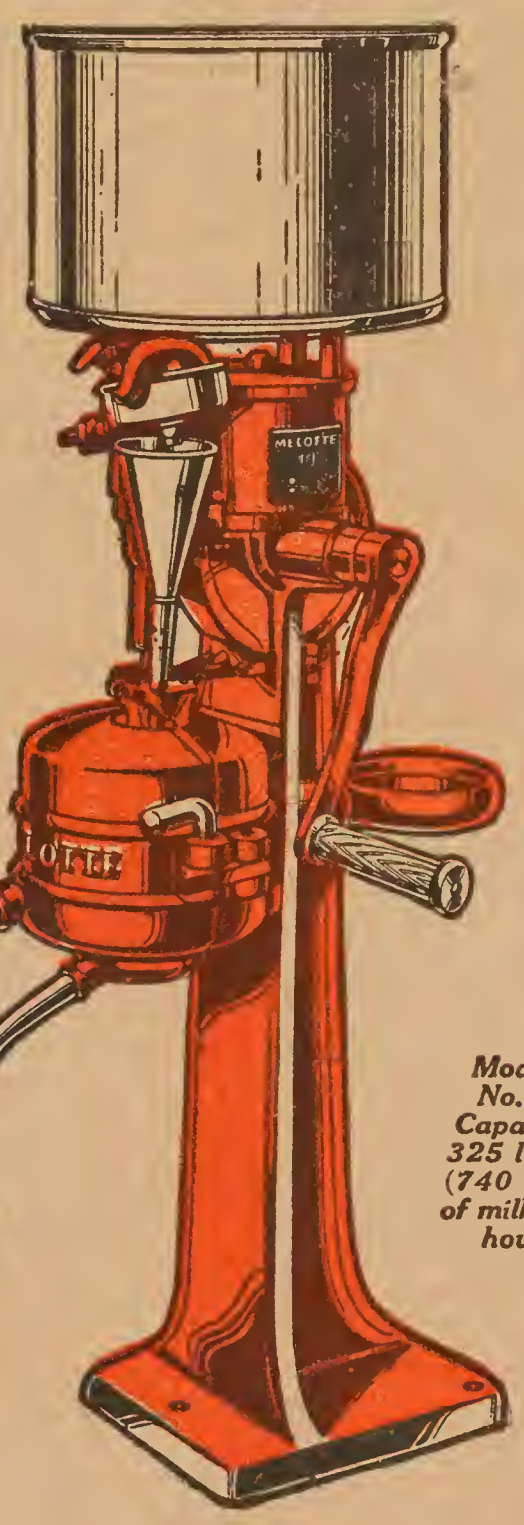

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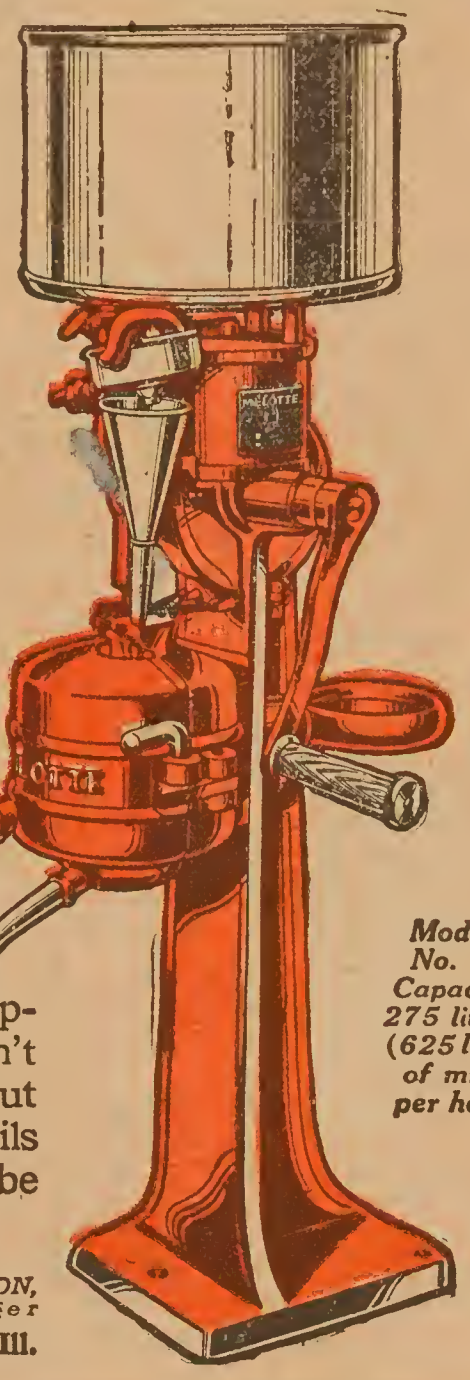

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VOL. 111 Founded 1842 No. 5

AMERICAN AGRICULTURIST

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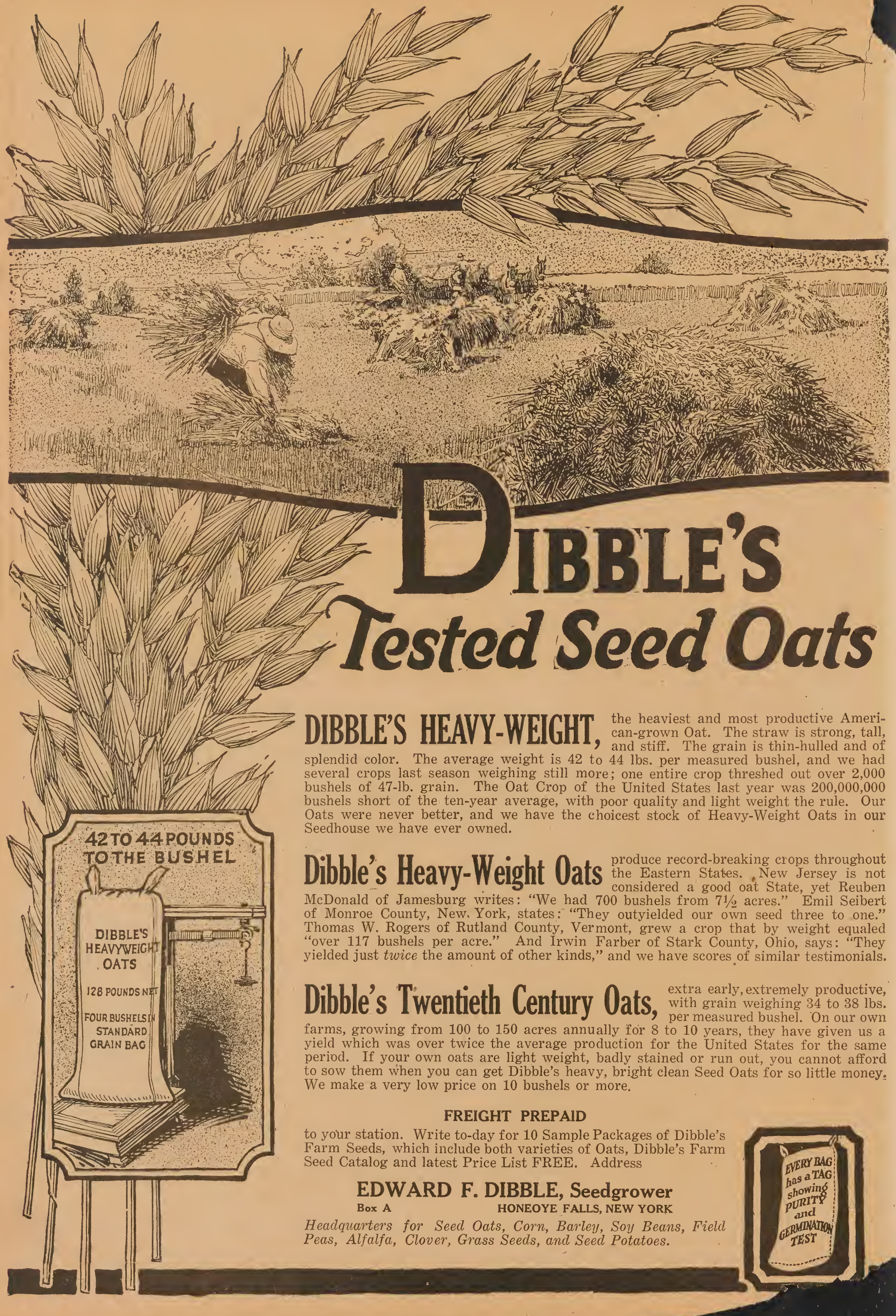
Years With Farm Machinery—By Alexander Legge



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American Agriculturist

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"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

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Volume 111 | For the Week Ending February 3, 1923 | Number 5

Eighty Years With Farm Machinery

How Would You Like to Go Back to "The Good Old Days"

By ALEXANDER LEGGE

IN trying to fill the American Agriculturist's request for a brief review of the farm implement industry in the last 80 years, I have not found that anybody has written a real and comprehensive history of this industry. The subject is so interesting, and is so bound up with the development of agriculture and of the national prosperity, that it would seem well worth the best efforts of any historian's pen; and these efforts ought to be made while there are still some living witnesses of the beginnings of this especially significant industry.

It is not so easy now to learn exactly what tools the farmer had 80 years ago, where they were made, and how he obtained them. Dates of invention are of little use, because then, as now, a long period usually intervened between the patent and general use.

Fortunately, however, I have been permitted to see letters which contain the recollections of two persons, still living, who tell what they saw with their own eyes about the farm equipment of three quarters of a century ago. One letter is from a bright old lady over at Oxford, Mich., writing of her father's farm implements 76 years ago. She says:

"We had a plough and a drag, a wagon and long sled or sleigh; a flail and fanning mill later on. Some of the grain was threshed out by throwing it on the barn floor and letting oxen tread on it round and round, and some with a flail. We could get our wheat ground for bread at Orion, about four miles away, where they had a good grist mill.

"It was a good many years before we ever heard of a cultivator. I can remember having to go, Ann and I, out in the field to drop corn for father. When the corn needed cultivating, it was done with a hoe, and when ripe it was cut down with a corn cutter made by cutting down an old grass scythe. They cut their hay with a scythe and their grain with a cradle. "When we wanted any corn shelled for meal, father would bring a shovel into the house and evenings he would put the handle on a chair and sit on it and scrape the corn from the cob into a dish."

The progress represented by the contrast in this picture completely changed the history of America. The harvester released millions to go to the cities and fed them after they had gone

Down at Buncombe, Ill., lives a man named Elkins, 97 years old, with a mind and memory that are still keen. I quote from a letter, written by his daughter's hand, in which he tells of the farm equipment that he used as a boy in 1842:

"We had a bar-share plow—a flat piece of iron with the back turned up a little for handles and beam to be fastened to. It was run flat on the ground, just scraping a little, and the wooden part was made mostly of white oak.

"We also had a bull-tongue plow, very narrow and long, made of iron, and a colter in front. It was much like the single-shovel plow that is in use now. These plows were

(*Continued on page* 100)

mold-board forms an angle of about 40 degrees, with a line of the beam, and, in operation, will throw the dirt from one to three feet, according to the speed of the team. In figure 12 you have a

(Fig. 12.)

sketch of one as it stands ready for use. The landside is a bar of iron, about 1 to 1 1-2 inches wide, and from 1-2 to 3-4 of an inch thick; standard, about 1-2 inch by 1 1-4 inches. The mold-board

From American Agriculturist of 1843

It is a progress from the "Iron on a Stick" used for plowing in 1842 to the modern multiple bottom plow, yet there are men still living who remember each stage in the wonderful development in soil tillage methods

Editorial Page of the American Agriculturist

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Founded 1842

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VOL. 111 February 3, 1923 NO. 5

Corporation Farming Leads to Peasantry

MR. MOSHER with his letter in the issue of December 30, started some interesting discussion on the advantages of corporation farming. Judging by the letters, some of which we are giving on the opposite page, our readers do not agree with Mr. Mosher. We do not agree with him, either.

Cooperative or corporate groups are necessary for the best results in farm marketing, but God forbid that day shall ever come when the land is owned and farmed by large groups in large units; when the American farmer shall cease to work for himself or when opportunities shall cease for individual initiative and independent thought. The small farms and the millions of independent landholders have saved our country people from the peasantry of the Old World, made our republican institutions possible and America what she is.

The Lesson From Europe

THE mightiest lesson in cooperation the world has ever known is the way the Allied nations worked together to win the war, and, conversely, the best example of how not to cooperate is the failure of these same nations to work together for reconstruction.

There came a crisis during the war when any hesitancy on the part of the Allies to submerge their selfish individual desires for the common good would have been fatal to the civilization of the world, and we know that from the last soldier in the ranks to the supreme commander, General Foch himself, there was presented to the enemies of civilization a united, unbroken front. But, because the story since the war has been different, we came near another catastrophe which threatened to upset all that was gained by the thousands who died on Flanders fields. Since the war we have seen the sad spectacle of Italy trying to go it alone as an individual, France and England airing an ancient grudge, and America believing in letting them quarrel it out among themselves. Because of dissension, Turkey, a once feeble and bankrupt nation, has massacred Christians by the thousands and hundreds of thousands, reconquered lost territory, succeeded in making individual treaties with Italy and France favorable to herself, and, worst of all, has succeeded in interesting the Bolshevists of Russia and the militarists of Germany in another plan to overthrow civilization.

Farmers of America are this winter facing an economic situation similar to the political one in Europe. Faced by the economic troubles left by the war, they are uneasy and dissatisfied, and some are thinking that the solution of their marketing troubles is to be worked out with the middlemen alone as individuals instead of themselves cooperatively. To these dissatisfied farmers, both in farm organizations and out, we point to the lesson in lack of cooperation and its deplorable results which the once Allied nations present at the present time.

Know Your Farm Leaders

"HOW many of your leaders do you know?" was the question recently put to American Agriculturist readers, and a picture of the gathering at Syracuse, showing fifty or sixty New York State Farm Bureau Federation men for identification.

The answer unfortunately seems to be "very few." The lists submitted were surprisingly short; and in many cases the results, it seemed, of out-and-out guess work. The first prize of $5 goes to Frank Manders of Manin, New York. The second of $2 to Mrs. Floyd Moot of Richmondville, N. Y., and one of $1 to Mrs. William H. Babb, Florida, New York.

It is too bad that the men who are devoting their finest efforts to further the prosperity of our New York State farmers are so little known by the rank and file. "Know your Farm Leaders," was the caption of the picture—American Agriculturist repeats that phrase most urgently and hopes that by the time the next annual meeting of the State Farm Bureau Federation is held, the men and women on the farms, will at least have a "speaking acquaintance" with their leaders in this great work of cooperation and progress.

Interstate Men Adopt Wise Policy

WE congratulate the members of the Interstate Milk Producers' Association upon their unanimous approval of the policy to increase the commission for the expenses of their organization from one cent a hundred to two cents a hundred. This organization with headquarters at Philadelphia is doing a fine work in its effort to secure for Pennsylvania farmers, fair prices for their milk, but its service can be greatly increased with more funds. The extra cent a hundred will enable the organization to employ additional testers and fieldmen and carry out new plans of work all the way along the line.

More Machinery—Less Men

A FEW weeks ago we wrote an editorial expressing the viewpoint of one of our readers to the effect that farm machinery had not made as much progress as inventions used in other business.

Several correspondents think our reader was hasty in his conclusions and that as a matter of fact farm machinery has not only kept apace but considering the difficulties which it has had to overcome has actually outdistanced inventions in other trades.

In this connection, Mr. Legge's history in this issue of the wonderful development of farm machinery is of great interest. Certain it is that farm machinery has been the chief reason why the American farmer with less and less man power has been able to produce more and more food.

A Needed Law

THE National Council of Farmer's Cooperative Marketing Association which recently met in Washington, passed a resolution which should have the support of every farmer and of Congress. The resolution asked for a national law requiring that on containers of any form for foreign agricultural products imported into this country should be conspicuously marked in English to indicate the name and nature of the contents of the package, the name of the country of origin and the date of original packing.

The American public is learning more and more to buy established brands of food products. Large quantities of fresh and dried fruits, eggs, tobacco, nuts, beans, butter, cheese, seeds and many other agricultural products are imported every year into this country in great quantities. While some of these products are of good quality, a good percentage do not conform to American standards of production and packing and child labor laws and compete with established American brands. It is impossible for the consumer to tell from the exterior appearance whether the goods are foreign or American grown. So he is often getting a poor quality foreign article which he thinks is American grown. In many cases foreign goods are repacked in this country and offered for sale without mention being made of the foreign origin or exact quality of the products. A properly labeled package would not keep out the good foreign products, but would protect both producers and consumers in this country from poor quality foreign goods.

Free Seeds Out at Last

AFTER nearly every farm leader and farm paper have worked for years to get Congress to give up the free seed nonsense, their distribution is to be at last discontinued. This will save the Government $360,000 a year. No real farmer ever received much good from the Government free seeds, but the politicians have bitterly fought to retain the privilege of using free seeds to repair their political fences. Town people got the bulk of the free seeds sent out. Thousands of packages went in the refuse; other thousands served only to start small backyard gardens. Real farmers got the seeds for his crops from other sources, but those not familiar with the facts were under the impression that the free seeds policy was another one of the many ways in which the Government was showing class favoritism to farmers.

Quotations Worth While

Responsibility educates.—WENDELL PHILLIPS.

* * *

A Bible and a newspaper in every house, a good school in every district—all studied and appreciated as they merit—are the principal supports of virtue, morality and civil liberty.—BENJAMIN FRANKLIN.

* * *

The sun should not set upon our anger, neither should he rise upon our confidence. We should forgive freely, but forget rarely. I will not be revenged, and this I owe to my enemy; but I will remember, this I owe to myself.—COLTON.

What We Think of Corporation Farming

The Pasture Over the Fence Has Weeds, As Well as Our Own

By OUR READERS

FROM observation of corporation farming, individual farming on a large scale, and experience gained in operation of a large farm it is my opinion that Mr. Mosher's plan allows for considerable criticism.

I will take Mr. Mosher's figures—5,000 acres capitalized at $500,000—although I believe the same trouble would be encountered on corporations much smaller.

First, the capitilization is much too high for the investor to ever see profit from the sale of farm produce. At 6 per cent the proposed rate of return to investors a profit of $30,000, would have to be earned. The interest from the Government bonds would not pay the taxes and depreciation on the tools and buildings for such a large proposition.

The minute that one changes from direct farm owner management to a plan of management where it is necessary to hire a manager to direct work or even to someone who is a joint owner, trouble commences and financial returns dwindle. The new manager of the corporation will go at his problems to the best of his ability to show the company officers that he is worthy of his position. But in a corporation where there is cash available the tendency is to pay a little higher price for labor and the manager will want first-class tools and equipment, not being willing to get along with old equipment as many individual farmers are forced to do.

Present day prices on machines and trucks run into large figures, and it is very easy when you have available cash to buy some high-priced machine that will not be worth its cost price to the business. The theory is that the equipment for the ten farms run under one management would be less than if run under ten different heads, but this does not prove out in practice.

The tendency is for the officers of the corporation to take the work a little easier than if they were working as individuals. There is more time to talk over problems and less action taken. If anything goes wrong, they, using a slang expression, simply "pass the buck."

Present day farming is conducted on a very close margin. It is usually impossible for farm managers and overseers to actually earn their wages. In other words farming does not warrant paying high wages and the placing of high overhead expense.

Mr. Mosher's plan for concentrating his help on a rainy day or for the harvest of certain crops such as wheat or hay has some drawbacks. It would not be advisable to hire all general utility men as the cost would be prohibitive. For instance one might hire a good chicken man that would not be of much value in the harvest field, packing apples, taking care of the dairy or vice versa. It would be necessary to keep some of the men on the road trucking or hauling almost continually on such a large place and I believe from experience that the manager would encounter some difficulty getting those men to thrash grain or clean out chicken houses. It would not be a wise policy for a manager to try and do this, although I agree that a certain number of general utility men could be jumped from one job to another to very good advantage.

I know of one corporation which owns about 18 farms averaging 100 to 150 acres [illegible] are managed by one man with bosses for the several farms and different departments. They market a high-class product, but I have been told and have good reason to believe that in approximately twenty years they have failed each year to come within $20,000 of paying expenses. This I would consider is a well established business and ably managed but it shows the futility of large corporation farming.

I also know of a large farm, 600 acres, with a manager and department heads for the different products which has shown a very large yearly loss and I doubt their ability to ever show a profit by the sale of farm products under their present scheme of management.

The bosses and general utility labor hired by a large corporation on the average are looking for a soft snap and will be able to get away with it much easier than when employed by an individual farmer. The bosses will work in their friends and petty politics will be played all along the line.

Crops and farm products are too uncertain in yield and price to run a farm on a business basis similar to other lines of business. This together with the necessary high overhead are the two main reasons why a large farm corporation will not succeed.—HAROLD R. HITCHINGS, Onondaga, County, N. Y.

Memories of the Farm

YES, Johnnie and Susie may complain now. They may have the same natural dislike for the tasks of the old farm that they have for castor oil, but the habit of industry will get its arms about them after a time. In time, tasks will become a joy instead of being a burden—that is, if administered judiciously, like the aforesaid castor oil; for overwork and underplay for the growing child is abominable.

Think of the crop of fragrant memories that become a lifetime heritage to the child brought up on a farm. On a stony hilltop, an old New England farm, I spent my youthful days. The flavor of wintergreen and sassafras and birch and slippery elm lingers in my mouth to-day, three thousand miles away from the scenes of my boyhood days. Again I sit in the old schoolhouse and look out of the window at the fields of ripening grain that "crinkle like a lake" in the soft summer breezes—a wonderful picture that has hung on the walls of memory for five decades!

Not the least of farm memories is the recollection of the spring by the wayside, where the thirsty farm folk who passed by, paused to quench their thirst. Even in a drouth, when other springs failed, the flow of this spring seemed unquenchable in its delicious coolness and purity. How sweet was the draught that we drank from the coconut shell that always companied with the spring—the temperate and the tropic zone combined to give their exquisite flavoring to the old spring.

The wealth of clover blossoms and the busy bees, the odor of the new-mown hay, how the memories of them flow back to me like incense from the old farm days. The memories of yellow jacket and bumblebee are more pointed and painful, but the pain of a sting is soon forgotten while the delightful memories will abide forever. The haymow where my sister and myself wrestled, or turned somersaults from the great hand-hewed beams into the fragrant hay—how vivid these memories.

There are no columns of steel, no mountains of cement, no huge sky scrapers that rise, like some modern Tower of Babel, to deny us even a glimpse of nature in her grace and purity. Fortunate the children who have the privileges and joys of the farm bound in their bundle of life—will it not prove a lifetime heritage?—G. W. Tuttle.

Corporation Farming Has Too Many "Ifs"

A CAREFUL reading of R. E. Mosher's plan for corporation farming looks all right in theory and probably would be all right if the corporation consisted of stockholders, all of whom were persons of business ability and all could lay aside all selfishness and would all work for the success of the enterprise. However, in practice such a company would be hard to organize without getting in some persons who would seek every opportunity to get the advantage of the others. A successful corporation pays everyone who works for it a compensation according to his ability. If a man proves his worth he is given a good salary. If another is not worth so much he is paid less. This would cause jealousies in such a corporation as Mr. Mosher suggests. Then in the matter of work, if I understand his plan, there would be some persons who would stand back expecting to reap the benefits of the other fellow's work.

If a person is placed in a position that he will reap the entire benefits of his labor, it is an incentive to do his best. There are some persons who seem to be afraid to help along a worthy enterprise that would benefit themselves because they fear that others will reap a part of the reward of their labor.

There are others who watch for every opportunity to do the other fellow and they usually find such opportunities in corporations.

Such selfishness and designing has wrecked many a worthy enterprise and I think the corporation suggested would prove a means of furnishing such opportunities and for this reason would fail.—A. J. LEGG, West Virginia.

All is Not Gold that Glitters

I READ with keen interest your splendid editorial of December 23, "Wrong Cannot Correct Wrong" and rejoice to know how many farmers will read it.

In the last ten days or two weeks I have of course had many callers at my office in the bank, and I am going to tell you of three of them, all men, and big men in their different vocations. The first was a wealthy merchant, a man I have known for some years. He looked pale, and careworn and tired, and he told me he had worried much about his business of late. I shall never be worth what this man is so far as money goes. He is younger than I am and yet his hair is getting white. I wouldn't change places with him, and yet when I was a farmer I used to think how easily he has acquired his wealth and become head of a big business.

Another was an engineer on a local railroad. He has reached the stage where he has the largest passenger engine on the road. He has a night run and a very fast one, but he too looked tired, and a bit careworn. He had a long deep scar on his cheek and neck, and he walked with a decided hitch in his gait. I knew this was because some years ago he was in a wreck, and had a miraculous escape. As he sat by my desk he told me that two nights before when he stepped off of his engine at the end of his fast run, with a train of ten cars, several of which were filled with sleeping passengers, he felt so nervous and tired that he had asked for a little vacation of a week or ten days. He is getting big pay.

The third man I have in mind was a farmer. He was weather beaten, hale and hearty, but his hard work for the last two years had brought him but little, too little, for all the work he had done. He was somewhat discouraged, but he said "If I can get through another year, I am in hopes I may make good yet, for I hate to move to town with my family, even if I can get more pay."

I sincerely hope that he and thousands of other good farmers will continue to think this way, for if they don't, conditions are bound to be serious in this agricultural country of ours.

(*Continued on page 93*)

The early truck brings the top prices. The use of 1000 pounds of complete fertilizer to the acre will frequently add as much as $100 an acre to the value of the crop, because it will not only increase the yield per acre, but will hasten the maturity of the crop, and bring it on the market earlier than otherwise. There are two things to remember: first, pin your faith to a reliable old brand like Royster's; and second, use a complete fertilizer in large enough quantities per acre to insure worthwhile results.

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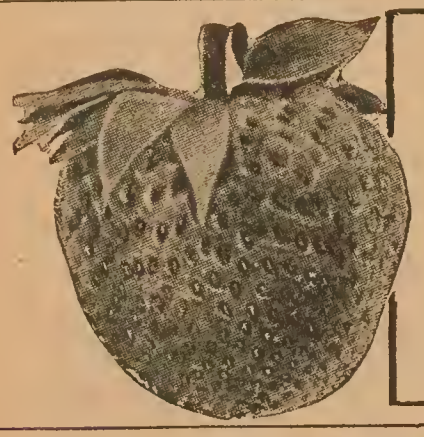

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Where Pessimists Are Rare

Mixing Optimists, Milking Machines and Investments

By H. E. COOK

RECENTLY I attended a meeting of the Mannsville, Jefferson Co., Grange, one of the strong subordinates in New York. It was organized Oct. 23, 1873, and will be qualified for a semi-centennial next fall. They have one of the most beautiful and capacious Grange homes in our State and a membership of over 400 prosperous, high-class people. The degree work, with tableaux and a highly trained drill team gave an artistic setting one cannot forget. As I studied the hall, the people, old and young, and the atmosphere developed, I couldn't believe that I was still in the same country that contains the hardships we read about every day in the news columns of the daily press and in our farm papers. Not one word, not even an expression denoting disappointments, was heard or seen. How could it be at a time, too, when we are passing through a great agricultural crisis and producing crops and products at far below cost?

H. E. COOK

Were these people so provincial that they had not heard of an agricultural depression, or were they getting more for their products than the rest of us, that gave them this easy, contented air? How am I to coordinate this community with the things I read about?

One may have the most practical theories, but they are of no use until properly adjusted into the system and plans for the day. Of course, where the owner is the milker, he can make quick adjustments, at times unconsciously, because he is both theorist and practitioner combined. But where one party works out the idea and another makes the application the idea must be systematized before it will pay. I find the most ideal methods and the largest crops are not always the most profitable ones. I have milked three times a day and made an increase of milk flow thereby, partly because of more frequent milking and partly because I fed more grain. But in our present business it is not worth while to get all of our cow washing and milking outfit into action with the necessary amount of scrubbing and sterilizing involved three times each day. We hear a good deal about "system" in industrial life. Well, it's equally important in farm life, when a monthly check must be made out for every movement, however small or insignificant it may be.

* * * * * *

There are some things I would change if the power was at hand. One is to stop sending so many spare dollars out of our own communities and off our own farms to be invested in every conceivable activity and place on the map. As a rule, the individual amounts are small, but the aggregate is large. I have no way of finding out what percentage returns interest, what amount does not pay dividends, nor how much of the principal is lost forever, nor is it particularly important that I should

Where Real Pessimists Are Scarce

I am not going to try, for it isn't worth while. But simply to say that here is a fine farming section largely devoted to dairying, with a uniformly steady, reasonable income for the years past, with savings of one sort or another made each in their own way to tide over any lean time that might by chance come along. Whatever the size of my complaining streak when I left home, it was very much reduced after a visit to this place.

* * * * *

Probably growing out of the fact we are making certified milk with milking machines, I get occasional inquiries in regard to their practicability in comparison with hand milking. In a general way, I wouldn't advise anyone to install a milker, or not to do so. We have, I think without question, proven that they can be kept clean by following closely the Geneva methods, as developed by Dr. Breed and his co-workers. Our milking is not a family job, but is done entirely by paid labor, and less and less do we get men who like to milk by hand and who are thorough hand milkers. I know very well that not every cow takes kindly to giving her fullest milk flow to the mechanical milker.

We find cows that are shrinking prematurely and by changing to hand milking the shrinkage will be checked and sometimes a gain is made. We are trying now to partially at least take care of this problem by changing them to a stable used as an overflow or auxiliary stable not equipped with a milker and often by milking them by hand in the regular milking stables.

I know, but the important thing I do know is, that if for only a single year we could have these savings spent locally on farms, buildings and live stock, an observer driving through would comment on the transformation.

So far as farmers are concerned, there seems to be a false notion, that is, it seems to me like a false notion, that these foreign or away-from-the-farm investments have the earmarks of real wealth, while the same amount put into fertilizers, or drainage, or improved working equipment in the home and on the farm, is that much more farming, and is locked up once for all. I'll wager, to speak in up-to-date business terms, that the total amount spent at home in any county in New York State will be more of a "liquid asset" dollar for dollar than the money sent out through our well-organized Bank Bonding Departments, and surely there are vast sums being taken by these agencies because leading banks now conduct a Bond Department.

I suppose this idea will be criticised as an effort to hamper the development of industry, but why, pray tell, should we not care for home industry first? Every dollar we spend on our farms changes hands many times right at home, and a good many people get a little of it, but when it goes away for investment no one here gets a farthing out of it, and actually we are letting our locality get ragged and helping to put a fringe on some place we have no interest in. I suppose this question, after all, resolves itself down to a case of local pride. Let us have mor

Pruning the Pear

Quality and Quantity Call for Winter Work

By HUGH FINDLAY

THERE is no variety of fruit grown that so rewards in flavor as well as in production of quality and even in quantity as does the pear. Why, then, neglect this type of tree and let it develop

Fig. 1.—A double fruit spur with thirteen flower buds well formed. This spur is on five year old wood from a fifteen year old tree

regardless of shape and without repressive pruning which is so necessary?

The pear is pruned differently throughout various periods of its growth because it varies in its habits of growth. One habit that seems common to all varieties of pears is the production of fruit on spurs. Seldom does the pear produce fruit on the terminal buds. Its fruit spurs (Fig. 1) are located well in on the branches and along the leader stems.

The object then, is to prune and train that it may have a well balanced head with strong well arranged branches and thus prevent breaking when the tree is heavily loaded with fruit. This manner will also facilitate spraying, thinning, and harvesting.

Any pear tree that is pruned in such a way as to admit sunshine and air has less chance of disease getting a foothold and the fruit buds are more evenly distributed. It is true that more fruit buds and flowers may be formed on an unpruned tree but they are frequently out of reach and the fruit produced is inferior in quality and size as well as in beauty. While sunshine and air are both important factors in fruit production, one must not cut out the branches so as to expose the bark to the direct

Fig. 2.—On left, Fruit buds on the ends of spurs. On right, Leaf buds on the previous year growth

rays of the sun. This frequently causes sun scald which injures the growth and health of the tree and diminishes fruit production.

A Danger of Too Severe Pruning

Too severe pruning frequently encourages a growth of water sprouts along the limbs which if allowed to grow will form such a tangled mass that the fruit buds and spurs soon fail to function. If the tree is weak and only makes a growth of two or three inches in a season, severe pruning will sometimes stimulate vigorous growth, providing the plant is free from insects and disease and planted in the right type of soil and drained.

In building a young pear tree the lower branches are cut considerably less than the upper branches, not only to give the tree the desired form but to throw the strength into and to encourage the growth of the lower limbs. This practice is quite important because in developing the lower limbs, one also encourages the growth of fruit spurs.

The pear tree may be pruned any time during the dormant period which is approximately from November through April. It has been found that pear trees pruned in March and April will heal over the wounds much faster than wounds made in November and allowed to dry during the winter. This is particularly true with large limbs; it matters but little when small limbs are cut off providing the buds are not out.

Shaping the Head

In training or shaping the head one must select one of the following forms: The pyramidal form, the natural forms or the vase form.

The pyramidal form seems to be most popular among commercial growers and it certainly is practical where a tree like the Kieffer bears a heavy crop.

Fig. 3.—A neglected pear (Kieffer) pruned back. Note the long fruit spurs along the limbs and trunk. Pruning in this case does not retard bearing but encourages it

This seems to be the natural shape of the Flemish Beauty, Bartlett, Sheldon and Duchesse d'Angouleme. In pruning and training a tree to the pyramidal form a single upright shoot which develops one year from the time of budding should have about one-half of its growth removed. The second year, one of the upper buds will take the place of the main shoot and elongate while a number of secondary branches will form mostly well up on the central shoot. The short and weaker branches will be near the ground. Three to five of these lower secondary branches should be selected and cut back to from three to six inches from the leader. The upper branches should be cut back and the strength thrown into the lower limbs.

The next pruning of this same form in early spring, is carried out by selecting the leader and cutting it back sufficiently to force the growth of buds which form the next whorl of limbs. With any of the standard varieties (Bartlett) this group or whorl of branches should not be over 16 inches from the ground. The Orientals (Kieffer) should develop the whorl of limbs not more than 20 inches from the surface while the Dwarf varieties are started about one foot above the surface soil. Each group of branches or whorls of branches should be pruned in such a way as to be longer than the whorl immediately above it. The lower

(*Continued on page* 101)

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Early Plants—Early Prices

Growers' Association Betters Market Conditions

By PAUL WORK

NO part of the gardener's yearly duties calls for a higher type of workmanship than the growing of early plants which are to be set out for the first crops and which are depended upon to skim the cream of the early markets. The man who grows wheat out west assumes little responsibility beyond meager preparation of soil and the purchase and planting of seed. The rest he leaves to nature. The man who grows plants under glass undertakes to guide them along lines which are not natural. His control is relatively complete. He accepts responsibility for the character of the soil, for temperature, moisture and ventilation, all in addition to the selecting and planting of seed.

PAUL WORK

Comparatively few plant growers are masters of their art. Too many have failed to form a clear cut picture of the kind of plant that they want. Even possessing such a picture, they have failed to analyze the part which each factor plays in bringing the picture into reality. As evidence one needs merely to glance at the quality of plants so often set in the field. Ofttimes they are soft, spindling and unable to withstand cold and wind; ofttimes they are over hardened to the point of stunting, and so unable to spring into rapid growth with the first fine days. Seldom do they posses the uniformity which is the prime test of a real workman and which insures worth-while quantities for early sale and not a mere scattering from the patch.

Soil for Plant Growing

The time to prepare soil for plant growing is eighteen months in advance. In this way it is possible to secure a blend—not a mere mixture—that will be light and friable, will contain ample humus and plant food, will drain readily and dry off quickly at the surface, at the same time that it retains a fair degree of moisture for the young plants. A soil that dries too readily requires too much labor in watering. A soil that holds too much water cannot be readily dried out when there is a period of cloudy weather. The result is rapid, soft growth if not actual damping off. Soil for seedlings requires comparatively little plant food but when plants are nearly ready for the field, they are closely crowded and they make heavy demand on the nutrients to be found in the pot or flat or cold frame. Well rotted manure and bone meal are excellent.

When a compost heap is started months in advance, the basis may well be dense sod cut from a sandy loam soil. This is heaped up with an equal amount of manure, is kept moist and is turned occasionally to insure uniform decay.

The soil at hand in February may be modified by the thorough mixing in of very well rotted manure, or of sand, or of bone meal, according to need, but such a soil can never equal a good compost.

When to Sow Seed

Definite rules in plant growing are out of the question. Some like to start early and grow the plants very slowly. This takes valuable space, much care and extra coal, all of which might be used for lettuce production. Others grow the plants quickly and depend upon the last few weeks for hardening. The following suggestions are offered merely as a starting point for experience. Assume a place where the average date of last killing frost is about May 10 (If you do not know, ask the weather bureau or consult a frost map.) Tomatoes are usually set outdoors two to three weeks later than this, and cabbage three to four weeks earlier. Fine, twice-transplanted tomato plants can be grown in eight to ten weeks. Cabbage, is transplanted but once, and can be brought through and hardened in 8 weeks. Growing plants in less time calls for higher temperature and more water. The longer time calls for lower temperature, less water and more ventilation. Six weeks is enough for lettuce and beet plants. Peppers and egg plants are handled about like tomatoes, but they require more care. Melons when started under glass, are shifted only to the field and four weeks is sufficient.

New York Market Gardeners Making Progress

The New York Market Growers Association, W. L. Hundertmark, Manager, has been striving for some months to better conditions for farmers on Wallabout and Gansevoort markets. The interest of the Manufacturers Association of New York was enlisted and a committee of that organization made a study of the situation. Their report has not been issued and will doubtless carry considerable weight. They recommend that speculators be excluded from the use of space intended solely for producers. They also recommend adequate comfort stations and water supply, that roofs be built over the stands, and that carrier service and charges be regulated. Action by the Board of Aldermen on an ordinance intended to legalize the special privileges which the speculators have acquired to the detriment of the farmers, has been delayed.

Vegetables in Cornell Farmers Week Program

Farmers' Week at Cornell is set aside as a time when the farmer may journey to Ithaca and learn what the staff of the College of Agriculture may have that might be of service to him. A full schedule for four days, February 13 to 16, deals with commercial and home gardening, including potatoes. Among the topics listed are: Vegetable Crops for the General Farmer; Standards and Grades for Vegetables; Better Seed, Asparagus, Celery and Cabbage, beside talks on insect and disease enemies. The New York State Seed Potato Growers' Association is to hold its annual meeting at this time and there are to be a number of sessions devoted to the production and selling of this crop. The New York State Vegetable Growers' Association is to take charge of an afternoon session, developing the service that growers may gain through organization. Full program may be secured by addressing the New York State College of Agriculture at Ithaca, New York.

State Growers Plan Annual Meeting

The New York State Vegetable Growers' Association plans to hold its annual meeting at Syracuse the first week of March. Detailed announcement will appear later. This organization has much to offer New York growers and the trip to Syracuse is worth while to take advantage of its service, to help develop its activities and for the sake of meeting and comparing notes with gardeners from all over the state

SPRAYING FOR PEACH LEAF CURL

ELMER WHITTAKER, MASSACHUSETTS

The curling of the leaves, which frequently occurs in early summer, is a serious matter, even though the trees put forth new leaves. The curled leaves weaken the tree. Leaf curl is caused by a fungus which lives over winter on the bark and buds, and attacks the leaves as soon as the buds "break."

Dormant spraying is necessary to prevent it. Commercial lime-sulphur used at the rate and strength of 1 to 8, is the only effective preventative. It may be applied before the buds "break" in order to be effective. Much of the spraying done for curl is useless because it is done too late. If the protective covering of the buds has broken, and the green shows as little as one-eighth inch, it is too late to use the spray. Another effective spray is Bordeaux mixture, 5-5-50. Both of these sprays must be applied after the leaves fall in the autumn, or before the buds burst in the spring.

HIRUCO

Improved and Pedigreed Seed

PEDIGREED BARLEY, Cornell's two favorites. Featherston No. 7, six row. Alpha, two row. For description see our advertisement January 20th issue or send for circular. Price, Featherston No. 7, $2.00; Alpha, $2.25.

PEDIGREED SEED OATS, cleaned through thoroughly equipped warehouse and treated for prevention of smut. Varieties—Cornellian, Victory, Crown and Golden Rain. For description see our advertisement January 20th issue or write for circular. All varieties, $1.50 per bushel.

SEED CORN, New York State grown from selected ears in special fields.

Pedigreed Cornell Eleven and Improved Oil Dent. For description see our advertisement January 20th issue or send for circular. Screened, $3.00 per bushel. Tipped and butted for accurate planting, $5.00 per bushel.

SOY BEANS, Black Eyebrow, an early sort. Bids fair to be most popular sort in New York and Pennsylvania. Price, $4.50 per bushel.

HUBAM SWEET CLOVER, Scarified, high germination and purity. Grown in New York. Price, small lots, 50 cents per pound, postpaid. Bushel lots or over, 40 cents per pound.

All prices bags free, freight paid. All orders to be accompanied by 25% cash. 3% may be deducted if sending all cash with order.

Investigation through Farm Bureau or Agricultural Colleges invited.

HICKOX-RUMSEY CO., INC., Batavia, N. Y.

KELLY'S

Better Fruit Trees

Guaranteed true to name. Direct to you. No dealers—no agents. 43 years' reputation for square dealing.

"Kelly" Planting Pays

Our new Price List which quotes new and attractive prices is now ready.

Send for your free copy of the 1923 Catalog today.—NOW.

Kelly Bros. Nurseries

1130 Main St. Dansville, N. Y.

You'll never regret planting Kelly trees

TREES

GOOD SEEDS

Grown From Select Stock —None Better—53 years selling good seeds to satisfied customers. Prices below all others. Extra lot free in all orders I fill. **Big free catalogue** has over 700 pictures of vegetables and flowers. Send your and neighbors' addresses.

R. H. SHUMWAY, Rockford, Ill.

COPPER SULPHATE

98—100%

We quote attractive prices. Special attention given to co-operative buying.

We ship from any Atlantic port reducing freight cost.

Arsenical Spraying Material

METEOR PRODUCTS CO., Inc.

58 Park Place New York

Certified Seed Potatoes

Sunnyside strain of Number Nines selected 12 years. Two first prizes New York State Fair 1922. Plant them to insure big crop of smooth white potatoes. Beautifully illustrated circular on request. Also Green Mts. and Cobblers.

RILEY BROTHERS

SUNNYSIDE FARM SENNETT, N. Y.

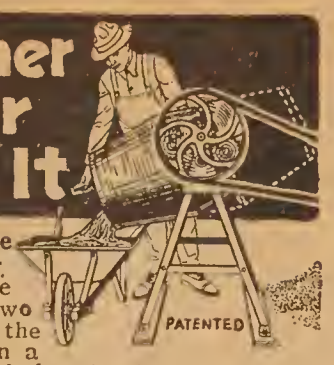
STRAWBERRY PLANTS

Hardy Northern Grown Plants, direct from the grower, right from the heart of the berry section of the State. Buy direct and save middleman's profit. Get fresh dug plants at grower's prices. Ten best varieties. Our slogan—Honesty—Quality — Reliability. Catalogue free.

HEYWOOD AND KLIMOVICH

Central Square, N. Y.

No Other Mixer Like It



a Batch a Minute

As pioneer mixer manufacturers we have developed two features that put the **Gilson Mixer** in a class of its own. It is the only mixer with **Patented Reverse Unloading Gear and Curved Mixing Blades,** insuring thorough mixing in shortest time. Loads on one side, dumps on the other side.

Gilson *Concrete Mixer* **30 Days FREE Easy Terms**

Due to the special **Curved** Mixing Blades the Gilson thoroughly mixes in ½ the time required by the ordinary type of mixer. Handles 2½ to 3 cubic feet of concrete at one time at the rate of one batch per minute. Turns out 34 cubic yards in ten hours. Mixes perfectly concrete, mortar or plaster. Any 1 H. P. Engine turns it easily.

Only $43.50 DIRECT TO YOU

The lowest priced, practical, improved mixer made. Built of iron and steel—lasts a lifetime. Ideal for farmer or contractor. Mixes concrete that requires no replacements, no repairs. Use this mixer 30 days at our risk. We guarantee it exactly as represented. Send your name today and get full description of this, the only Reverse Unloading Gear Mixer, and easy payment plan.

FREE Circular Explains Two Greatest Mixer Improvements of the Age

Gilson Mixer Co.
723 7th Avenue
West Bend, Wisconsin

What is the easiest plow to hold?

LE ROY

Why?

Extra long landslide, proper suction.

If Your Dealer does not handle

LE ROY PLOWS

Write LeRoy Plow Co., LeRoy, N.Y.

SMASH GO PRICES on FENCE GATES, POSTS, ROOFING-PAINTS

Right now I'm making another SLASH in my prices—a slash that will open your eyes. I've cut my usual low prices way down to enable my farmer friends everywhere to replace their fences, gates, and paint buildings that have long been neglected because of war-time prices. Write today for 104-page cut price catalog giving my low prices. Everything slashed way down—Fencing, Barb Wire, Steel Posts, Gates, Roofing and Paints at real bargain prices. Everything guaranteed. Write for catalog today. Jim Brown

FREIGHT PREPAID

FENCE GATES POSTS ROOFING PAINT

BROWN FENCE & WIRE CO.
Dept. 3010. Cleveland, Ohio

for **FORDSON Tractor**

PIERCE GOVERNOR

Will Pay for Itself In Two Weeks

Saves fuel and oil. Saves one man's time on all belt work. Makes tractor last longer. Can be installed in twenty minutes. Lasts for years. Write today for free literature.

The Pierce Governor Company
Dept. 1 ANDERSON, IND., U. S. A.

Fine full-sized VIOLIN and bow given according to plan in our catalog. Send for 30 packs FLOWER seeds, 10c large pack. **Earn Big Money or Premiums.** Send no money. *We Trust You.*

AMERICAN SEED CO., Box V-19 Lancaster, Pa.

What We Think of Corporation Farming

(*Continued from page* 89)

In years gone by I have often looked upon the man getting large wages with covetous eyes, but I am in a position now where I can see that all is not gold that glitters.

I still own my farm and have good men upon it, so I do not feel entirely lost, and trust that soon we shall see more profit for the farmer. The sooner the better for all.—CHAS. R. MELLON, Seneca Co., N. Y.

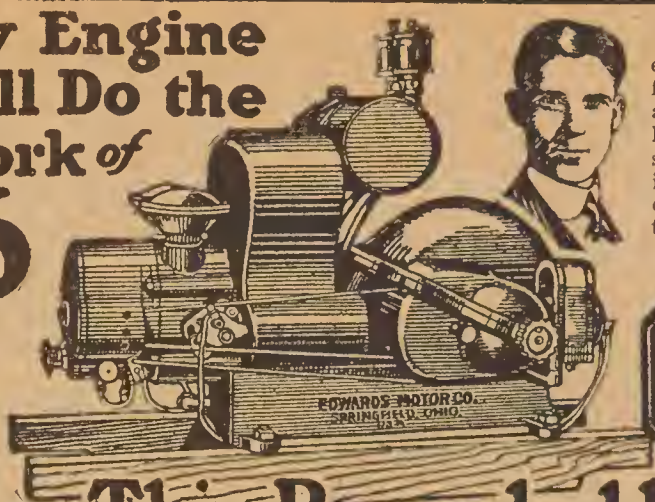
Our Duty is to Help Enforce the Laws

IN the December 23 issue of American Agriculturist, I read the title "Wrong Cannot Correct Wrong." I read this article with interest and I heartily endorse your views expressed concerning the Klu Klux Klan. I do not think that the Klan represents the true American principle, though Rev. Billy Sunday declared that the Klu Klux Klan is one hundred per cent American in an address at Charleston, W. Va. last winter. This was after Klan members had presented him publicly with a nice fat purse. It may be that "Billy's" declaration was literally true since the Klan does not permit foreign born citizens to join them. But does this represent the true American principle for which our fathers fought? Is this the principle for which Lafayette fought by the side of General Washington or Baron DeKalb and Count Pulaski died on American soil fighting by the side of American born citizens though all of them were foreigners? I am not a Roman Catholic myself, but when it comes to an organization, the main principles of which are founded upon prejudice against foreign born people without regard to their character and against a great church that recognizes Jesus Christ as the savior of the world, which sends out its adherents to care for the helpless, the poor and needy in Jesus' name; I am suspicious of that organization. We have enough to do to keep ourselves straight and to do what good we can without appealing to prejudice against others to bolster up our own ideas.

Again I read on same page a quotation from Patrick Henry: "It is foolish to cry Peace! Peace! when there is no peace." I think this is no less true to-day than it was when it was uttered, but in somewhat a different way. Before the Prohibition Amendment was adopted the Government in a way was in partnership with the whiskey powers by granting license, they granted the privilege to certain persons to make drunkards of the balance of the people. This made it to the interest of the privileged class to enforce the law against bootleggers, so we had few moonshiners and bootleggers. Now it is different, the privileged class must either go into other business or else turn bootleggers. Many of them have organized themselves into a regular lawless bootleggers organization. We have men of character and principle standing for law and order and some who slip into places of responsibility who court favors of the lawless element. Many otherwise good citizens are standing off excusing ourselves with the declaration that it is the officers business to enforce the law. It is the officers duty to enforce the law, but he cannot do this unsupported. He must have help. We have a State officer in this State, West Virginia, in the person of W. G. Brown, State Prohibition Commissioner who has the courage of his convictions. He is honest, aggressive and fearless in the discharge of his duty, still we have bootleggers and moonshiners in the State, but I do not think so many as we had a few years ago. The fight is on against lawlessness and no good citizen should cry peace! peace! until the law against whiskey selling is properly respected all over this broad land of ours. Is it not the duty of every good citizen, whether American or foreign born to stand for enforcement of law? Can we afford to leave this enforcement of law to an organization founded upon national and religious prejudices?

I should hate to get along without the good old reliable American Agriculturist. — H. R. EATON, Cortland County, N. Y.

My Engine Will Do the Work of 6



"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."
—*A. Y. Edwards.*

EDWARDS ENGINE

Try This Remarkable Engine FREE

There is no other farm engine like it. Simple in construction and easy to operate. It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P., yet it is so light that two men can carry it easily. Set it anywhere and put it to work. Change power as needed. It is a 6 H. P. when you need 6, or 1½ H. P. when you need only 1½, or any power in between. Fuel consumption in proportion to power used and remarkably low at all times. Adjustment from one power to another is instantaneous. It is many engines in one. Operates with kerosene or gasoline. Easy starting, no cranking. Low factory price—now lower than before the war. The greatest gas engine value on the market. And you can prove all of these statements to your own satisfaction—try the engine yourself—free of cost or obligation.

What Users Say

Ivan L. Blake, of Hannibal, New York, says: "Only engine economical for all jobs. I run a 28-inch cord wood saw, a 24-inch rip saw, a washer, a pump, and a grinder, and it sure runs them fine. It has perfect running balance, and it sets quiet anywhere."

Robert Gruett, of Spokane, Washington, says: "It has given entire satisfaction. Furnishes steadier power than my old engine which weighed twice as much. It is portable, adaptable and free from vibration. If I sold my Edwards today, I would order another tomorrow."

Frank Foell, of Cologne, New Jersey, says: "It's a great pleasure to own an Edwards engine. I run a wood saw, cement mixer, threshing machine, etc. Do work for my neighbors. Easy to move around and easy to run. I would not have any other."

Clarence Rutledge, of Manitoulan Island, Ontario, says: "Have given my Edwards three years' steady work and like it fine. It uses very little fuel. I run a 28-inch cord wood saw, also a rip saw, 8-inch grinder, ensilage cutter, line shaft for shop, churn, washer, separator and pump. Have had ten other engines, and the Edwards beats them all."

Kurt Kruger, of New Brighton, Minn., says: "I run a 30-inch wood saw, 8-inch feed grinder, also a pump jack. You cannot beat the Edwards for general farm work."

Free Trial Offer

Now—we want to prove our claims to you. We want to send you an Edwards engine for absolutely free trial. Just send us your name and address and we will send immediately complete details about the Edwards engine and about our remarkable free offer. No cost or obligation. Write now.

The Edwards Motor Co.
333 Main St. Springfield, O.

17¢ A Rod and Up

PEERLESS FENCE

Now Sold Direct from Factory

Our New Plan of selling the famous Peerless Fence direct from three big factories is "glad news" for farmers. It means the cutting out of all "in-between" profits and a slash in prices that will save farmers thousands and thousands of dollars. Now you can get this well-known, high-standard fence, also gates, steel posts, barb wire, smooth wire, paints and roofings, at the

Lowest Prices Ever Quoted

on Peerless Fence, Gates, Roofing and Paints. Don't fail to send at once for our New, Direct-from-Factory Peerless Catalog—over 100 pages of sensational bargains—prices that will be a glad surprise to you. For example:

Peerless Farm Fence, per rod, 17 cts and up

Steel Farm Gates, each . $3.65
Steel Posts, each . . . 22cts
Barb Wire, 80 rod spool . $2.47
Lawn Fence, per ft. . . 7cts
Paint, per gallon . . . $1.19
Roofing, 100 sq. feet, roll . $1.25

And so on, throughout this great money saving book, our prices will be a revelation to you. The same, old time, high quality—the prices cut to rock bottom through our change in selling direct from factory to you.

FREE, Send For It TODAY

Just drop us a post card for this big money-saving book. See for yourself the money you can save. Everything you buy is backed by a "money-back" guarantee. You take no risk. Write for catalog today.

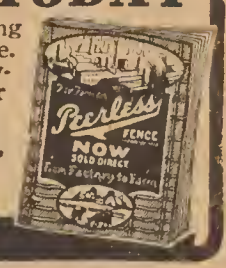
PEERLESS WIRE & FENCE CO.
Dept. 3022 Cleveland, Ohio
Factories at Cleveland, Ohio, Adrian, Mich. and Memphis, Tenn.

Why Peerless Fence Satisfies

PEERLESS WIRE & FENCE CO.
Cleveland, O.

Having a general acquaintance with the desirability of Peerless Fence and the well managed company, I can highly recommend it as the best all-purpose fence in this county. I know of fence still in use which has been up for 20 years.

Yours truly,
Henry W. Stevens,
Tecumseh, Mich.



For "nice" cultivation

Planet Jr.

Safer than a horse cultivator, faster than the old hand hoe, Planet Jr. No. 12 double-wheel hoe gives you the ideal combination of clean yet speedy hand cultivation. It is the riding cultivator principle applied to a wheel hoe—cultivating both sides of the row at once, running close to snake out persistent weeds, always under the operator's control. It clears plants up to 20 inches high, and cultivates equally well between the rows. Large market growers use No. 12 in batteries. Every farm which grows truck for sale or for the home table will find it profitable in time saved, in better results, and good for years of useful service. It's a Planet Jr. implement—that's why.

Write for complete catalog of Planet Jr. seeders and cultivators—hand, horse and tractor.

S. L. ALLEN & CO., Inc.
Dept. 36
5th & Glenwood Ave. Philadelphia

This mark and the name "Planet Jr." identify our products.

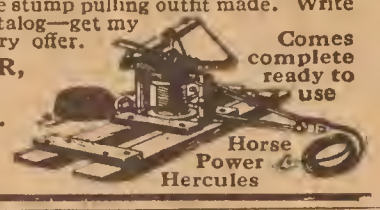
Hand Power Hercules

Fastest, Cheapest Way to Clear Land

At a contest held recently in England, Hercules all-steel triple power stump puller pulled stumps faster than any other method. Quick work—low cost and one man does the job. Hand power in four speeds, single, double, triple and quadruple power. Easy to pull—quick winding cable, and other features. Horse Power Hercules is most complete, up-to-the-minute stump pulling outfit made. Write for prices and catalog—get my 1923 introductory offer.

$10.00 Down
Easy Payments

B. A. FULLER, Pres.
Hercules Mfg. Co.
623 29th St.
Centerville, Iowa



Comes complete ready to use

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Corrugated Metal ROOFING

$3.10 per Sq. 100 Ft.

Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only $3.10 per 100 sq. ft. painted. Galvanized, only $4.30. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money.

PREPARED ROOFING ONLY $1.05

Don't buy Roofing, Paints, Fencing, Gas Engines, Tires—anything you need until you get our latest catalog. You can see and try our roofing before you pay. All sold on money back guarantee. Write for Money Saving Catalog today.

The United Factories Co., 604 Marion Bldg., Cleveland, Ohio

NEW WITTE Throttling Governor ENGINE – Simple—Wonderful.

Runs on either Kerosene, Gasoline or Distillate. Starts without cranking. Vary power at will. Mechanically perfect. Years Ahead—Dollars Better. New Catalog FREE—Shows all styles. Cash or Terms. Write us.

WITTE ENGINE WORKS

1800 Oakland Avenue, - KANSAS CITY, MO.
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USE A LOG SAW!

This outfit easily cuts 15 cords a day, falls trees, buzzes up branches. Does work of many men.

2 H-P
$91.50

OTTAWA 1923 MODEL F.O.B. Ottawa $97.25, Pittsburgh

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Easy to move. Mechanically Operated Valves, Throttling Governor. Burns Kerosene. Write today for Free Book.

OTTAWA MFG. CO.
801-P Wood St., Ottawa, Kans.
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Maple Syrup Makers

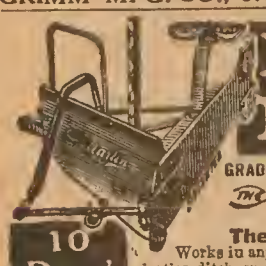
Profit by adopting the GRIMM SYSTEM

Sectional plans with high partitions. Light and heavy cannot intermix, insuring highest quality with least fuel and labor. 22 different sizes.

Write for catalogue and state number of trees you tap.

We also manufacture I. X. L. evaporators and can furnish repairs for same.

GRIMM MFG. CO., 3703-A E. 93rd St., Cleveland, O.



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The Great Farm Builder

10 Days' Free Trial

Works in any soil. Makes V-shaped drainage or irrigation ditch or cleans ditches down to four feet deep. Does labor of 100 men. Make every acre pay. All steel. Reversible. Adjustable. No cogs or levers to get out of fix. Write for free book and our proposition.

Owensboro Ditcher & Grader Co., Inc.
Box 352, Owensboro, Ky.

FREE!

80 page Land Clearing Book illustrated in colors. Written by land clearing experts. Explains the different methods and tells when each is best. Write today for free copy. New low prices and easy terms on latest model Stump Pullers.

30 Day Trial
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Demonstrators wanted Write Today.

A. J. Kirstin Co. 653 Lud St., Escanaba, Mich.

KITSELMAN FENCE

"I Saved Over $14", says L. M. Boswell, Jamestown, N.Y. You, too, can save. We Pay the Freight. Write for Free Catalog of Farm, Poultry, Lawn Fence.

KITSELMAN BROS. Dept. 203 MUNCIE, IND.

WE PAY $200 MONTHLY SALARY, furnish rig and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X 507, Springfield, Illinois.

Big Times at Ithaca

Farm News From Farmers of New York

THOUSANDS of farmers are looking forward to a trip to Ithaca some time during the week of February 12 to 17, to attend the Farmers' Week at the New York State College. The program announced by the college justifies the anticipation of those who expect to attend.

The outstanding topics to be discussed are those relating to marketing and financial problems, but a good deal of attention is given to entertainments of various kinds, and special conferences of different interests and groups are scheduled for nearly every day. Some of these conferences are a special homemakers' conference throughout the week, and a conference of grange masters and lecturers, a dinner of the state federation of horticultural societies and floral clubs, a meeting of the state co-operative seed potato association, the annual meeting of the state co-operative poultry certification association, a meeting to organize a state wide poultry council, conferences on the rural community, the rural schools, the country church and a meeting of editors on daily and weekly newspapers.

Many Prominent Speakers on Program

Special attention is to be given in the program to the interests of dairymen. Some of the speakers on the dairy program include C. W. Larsen, Chief of the Dairy Division of the United States Department of Agriculture; E. R. Eastman, Editor of American Agriculturist; H. E. Cook, well known Dairy Farmer; W. H. Marcusson, Assistant Manager of the Borden Milk Company; G. E. Hogue, Assistant Commissioner, State Department of Farms and Markets.

Other speakers include men of national reputation, such as Eugene Davenport, writer on agricultural subjects; Charles H. Judd, of the University of Chicago, who will speak on the problems of the rural schools; Hon. Sidney Anderson, Chairman of the Congressional Committee of Agricultural Inquiry; Sherman J. Lowell, Master of the National Grange and Enos Lee, President of the State Farm Bureau Federation.

Many of the admirers of George F. Warren will make the special trip to Ithaca purposely to hear him speak on financial inflation and deflation on Tuesday; the relation of industrial conditions to agricultural conditions on Wednesday; and the prices of farm products and probable future prices on Thursday.

There will be entertainment programs for each afternoon and evening, which include readings of French-Canadian poems by Prof. George A. Everett; reading of "Enoch Arden" with piano accompaniment, by George C. Williams of the Ithaca Conservatory of Music; a lecture on the home life of birds by Prof. A. A. Allen; Prof. Eugene P. Andrews will give an illustrated lecture describing his recent thousand mile trip on the Nile River; Mrs. Anna Botsford Comstock will favor with an illustrated lecture on farming in Sicily; Prof. J. T. Quarles, Cornell University organist, will give an organ recital in Bailey Hall, and all will join in singing.

Other evening features will include the following: Monday evening, a speaking contest, debate and musical numbers by winter course students; Tuesday evening, concert by the Cornell University student orchestra under the leadership of George L. Coleman; Wednesday evening, the pageant of farm life written by Mrs. G. Thomas Powell of Glen Head, Long Island, which was given at the State Farm Bureau Federation meeting at Syracuse; Thursday evening, the annual Eastman Stage, student prize speaking-contest on agricultural subjects; and the Kermis play "The Meddlers" written and produced by students on Friday evening.

STATE BREEDERS HOLD BIG MEETING

The recent successful annual convention of the New York State Breeders' Association in Syracuse was marked by some very constructive discussions of the outstanding agricultural problems of the State. C. F. Bigler, president of the New York Holstein Friesian Association, suggested a plan that promises to bear fruit of great value to New York State farmers. He outlined an idea of all non-commercial farm organizations of the State joining together during the same week each winter for annual conventions, in connection with which a winter show of farm products would be held at the State Fair Grounds.

The plan elicited much favorable comment, as it was realized that state-wide organizations now often hold annual meetings in different cities or the same city at the same time and cause much inconvenience to members, who cannot attend both. A combined meeting would also allow officers to secure the most prominent speakers in the country for the event. The winter show plan will probably be taken up for definite action at a meeting of farm organization officials at Farmers' Week at the State College of Agriculture, Ithaca, in February.

A large number of eminent men spoke at the meeting, including Chancellor Charles Wesley Flint, Syracuse University; Berne A. Pyrke, Commissioner of Farms and Markets; Lieutenant Governor George R. Lunn; Dr. R. W. Thatcher, Director of the New York State Agricultural Experiment Station, Geneva; A. L. Brockway, President of the New York State Horticultural Society; and others. Harry S. Gail of East Aurora was re-elected president for the year.

FARM NEWS OUT OF ALBANY

There is considerable discussion among Legislators regarding suggestions for helping the rural schools. No bill has been introduced as yet but a great deal of interest is being shown.

* * *

Governor Smith's suggestion that the Commissioner of Farms and Markets should be appointed directly by the Governor instead of by the Council of Farms and Markets as at present, is causing a good deal of talk in Albany. It seems to be general sentiment among up-state men that there has not been sufficient time elapsd as yet to judge the work of the Department under the new law of last year.

* * *

A bill has been introduced to amend the Donnelly Act to repeal the amendment which gives exemption to farmers in cooperative organizations. This bill should be carefully watched.

* * *

Bills have been introduced to provide that the State build and maintain bridges on what is known as State Roads and that the State and County build and maintain bridges on roads known as State and County highways. The object of this legislation is to relieve many of the towns of the State of low assessed valuation from heavy bonding indebteness which would be necessary for them to provide bridges that meet requirements of the State Highway Department.

IN WESTERN NEW YORK

Genesee Co.—This winter is proving to be most serious. The temperature has hit the low stop three times already. Snow storms have been severe and most of the roads are practically impassable. Fuel has been very scarce and folks have been compelled to use soft coal and coke instead of ordinary coal. Prices on crops are coming around better. Wheat is now bringing $1.35 a bushel, potatoes are 60 cents a bushel and apples find ready market at 60 cents. Butter brings 55 cents a pound, eggs 65 cents a dozen.—J. C. J.

Ontario Co.—We have had several important meetings of late. The Agricultural Society held its election of officers, the Hopewell Grange installed new officers and there have been several Farmers Institutes. Farmers are mostly concerned about coal, having taxes reduced, and in the prospects for next season. This is not a milk county so we are not much interested in the prices of milk. Wheat is $1.30, oats, 70 cents, barley, 90 cents, corn, 75 cents, bran, $32 a ton, dressed pork, 13 cents, lambs, 12 cents, beef, 6 cents, hay, $10, red beans, $7, potatoes, 45 cents a bushel,

It Saved These — It Can Yours

WHEN working time means money to you, Save-The-Horse cures SPAVIN, Ringbone, Thoropin, or,—Shoulder, Knee, Ankle, Hoof and Tendon Disease.

FREE 96-Page BOOK

telling how to locate, understand and treat over 58 kinds of lameness. This valuable BOOK, sample of our signed MONEY-BACK GUARANTEE and expert veterinary advice —all FREE—no obligation.

SAVE-The-HORSE

cures while horse works. It saves loss of time and money. Over 350,000 satisfied users. It costs you nothing to learn all about it. Don't wait. Write today.

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342 State Street Binghamton, N.Y.

At Druggists and Dealers with Signed Contract or sent prepaid.

Strout Selected Farms

You will find in our big catalogue of 160 illustrated pages the farm you want at your price. Send today for free copy. It will save you time and money.

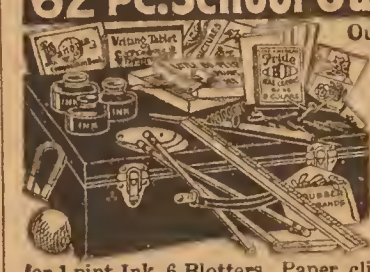
On Page 105

Money-Making Farm Home

see photo and all details, 195 acres, cuts 150 tons hay, valuable wood, timber and orchard, 10-room house, 80-ft. barn, silos, etc. To settle affairs at once, 27 cows and young stock, 4 horses, big line farm machinery, hay, ensilage, grain included, all only $13,000, easy terms. Opportunity of a lifetime. Many others throughout 33 states.

E. A. Strout Farm Agency
Dept. 1, 150-R Nassau St., N wYo k

62 Pc. School Outfit FREE



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butter, 45 cents, eggs, 40 cents a dozen. —E. T. Brizzee

Wyoming Co.—Tax time brought out the fact that many farmers have not sold their crops, or if they have sold them prices are too low to meet expenses. Potatoes are moving slowly at 45 cents, eggs 50 to 55 cents, butter 45 to 55 cents. I think the farmers are generally feeling a little better about the milk situation. Although the League is not gaining in membership, the old members seem to feel much better satisfied than they did two months ago.—L. M. F.

IN THE HUDSON VALLEY

Saratoga Co.—The outdoor work has been greatly retarded by the unusual amount of snow. Country roads are badly drifted and in many localities they are impassable. Very little ice has been harvested as yet. Local dealers are paying 55 cents for butter, 55 cents for eggs. Good cows are in strong demand at very satisactory prices. The snow has been so deep that farmers have had difficulty in cutting wood. The help problem looms large and serious as the spring draws near.—E. S. Rodgers.

Greene Co.—Heavy snows have stopped work in the woods and have also delayed mails. Last season's apple crop was large but most of the fruit was sold for low prices except where orchards were sprayed. It is very evident here that farmers will have to spray if they are to get good prices. Not much call for cows; beef, 10 cents, dressed pork, 10 to 14 cents, hay, $10 to $12, butter, 50 cents, eggs, 45 cents. Farm help is very scarce at $2 a day. We can look for lower production next year as a result of scarcity of help. In our section a large number of city people are buying farms that do not produce crops. These estates are keeping wages up.—J. A.

ALONG THE SOUTHERN TIER

Broome Co.—The Farm Bureau under the direction of Jasper Eastman is more than usually active this winter, its work covering all parts of the county. The meetings held so far have been well attended.

The decision of Referee Merwin at Utica last week, establishing the legality of co-operative marketing of milk, as determined in the case of Barnes vs. the Bordens Milk Products Co., is being received with a great deal of satisfaction by the dairymen of the League Association, Inc., of this vicinity. This decision will have a marked effect, it is believed, upon the number who will take advantage of the February withdrawal period to become non-poolers. The defection will be slight in Broome and adjoining counties.

Efforts are being made by the different milk men of Binghamton to prevent the promiscuous use of bottles. The movement was started by the Cloverdale Creamery Co., which brought suit against another dealer for accepting from consumers and using Cloverdale bottles without warrant. In the courts this case was decided favorably to the plaintiff, and now all dealers ar vigorously trying to recover bottles belonging to them. They appeal to consumers to return empty bottles promptly, stating that every bottle means six cents.

Ice, ten inches thick, is being harvested from the ponds and still places of creeks in Broome County.

Farmers who have not good wells are having trouble to get water for their stock. There has been no thaw for weeks sufficient to replenish the usual water courses. Snow now stands about a foot and a half deep.

A new $235,000 school building is about to be erected at West Endicott. This is a fast-growing part of the original village of Endicott, where the Endicott-Johnson people are building new shops.—E. L. V.

Mr. Van Wagenen's article and our editorial on the Country Church problem struck a responsive cord in the hearts of farm people. Over 100 letters on this subject have already been received, with more coming every day. You may look forward with anticipation to the publishing of the best of these letters in a late February issue of American Agriculturist.

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In the picture are a number of hidden faces. See how many you can find. Some are looking right at you, some turned sidewise. You will find them upside down and every way. Mark each face you find with a pencil and mail to me with your name and address. If you find as many as five of the hidden faces I will enter you in this contest with 1,000 votes to your credit and send you full particulars and surprise souvenir free. The two leaders will get these cars. Why not you? Write today SURE.

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Don't delay. Order one of these bargains to-day

American Agriculturist

461 Fourth Avenue New York City

Madison Square Poultry Show Breaks All Records

WITH the opening of the National Poultry Show in the Madison Square Garden, New York City was treated to a barnyard chorus of 7,000 voices. In fact, when a visitor stopped in to the show from the cold and busy streets surrounding the Garden, the atmosphere changes immediately. It called to mind a bright, balmy, sunshiny spring morning when when every bird in the farm flock is cackling and making a racket in general. The chorus is all the more varied, for the caroling of the 7,000 birds includes everything from "canaries to ostriches," as one visitor rather emphatically described it.

This year's show surpasses all former exhibits in numbers and in quality of birds. Every strain is represented by magnificent individuals. It seems as though White and Barred Rocks, Wyandottes and Orpingtons are being bred larger every year. Another breed in the utility class that is arousing a great deal of attention this year is the Jersey Black Giant—an ideal utility bird. Its feathers are black, its skin is yellow and its egg is white.

The outstanding criticism of the show was the lack of proper identifying labels on the cages and pens of the various birds. Unless the visitor cares to pay 50 cents for an official catalog, it is impossible to tell anything of the exhibit, unless all of the breeds are known, and there are very few who know all of the various breeds when fancy fowls are taken into consideration. The show has overcome this in a very small measure by labeling the winning pens, naming the breed when designating the premium awarded. However, these labels are so small that the average visitor will pass by without noticing them.

This is not only true of Madison Square Show, but practically every other poultry show. If advertising in the catalogs is insufficient to pay for the cost of publication, then each individual exhibitor should be taxed pro rata for his space in the catalog. At any rate, the tax should not be put on the visitors. It is like a double admission proposition if the whole show is to be enjoyed.

VALUE OF MILK PREDOMINATES AT HEALTH SHOW

Probably the most interesting exhibit to adults, as well as to children, at the Public Health Exposition held in New York during the week of January 22-27 was the "life-sized" map of Healthland, a reproduction on a huge scale of the drawing shown in American Agriculturist some weeks ago.

Over the green palings of the fence which protected this papier-mâché marvel from childish handling hung children by score, fascinated by the real train which ran around the shining track, by the giant milk bottle signal towers, the running waterfall at Drinkwater, the pumpkin in which the famous Peter dwelt and the baseball field with its poster "Spinach on the Home Plate," "If you get one carrot steal second," "Strike out Coffee and Tea," and other amusing signs. The youngsters were weighed and told whether they were below grade or correct, and were given free slides on a chute from the top of a giant milk bottle. This entire exhibit was staged by the Child Health Organization of America.

A close second in the interest elicited from the crowds which kept the Grand Central Palace filled every day and evening was the corner where four pure-bred Holsteins sent to the show from Fishkill Farms by their owner, Henry Morgenthau, Jr., munched stolidly away in their stanchions. These Black and White record-holders were milked at regular intervals by mechanical milkers and a large audience always gathered for the process.

Milk posters, milk demonstrations, milk bottles of gigantic size, met the eye at every turn. It was very nearly a milk show, and every one went away with pockets full of literature on the wisdom of using it liberally. The only other "live stock" at the show consisted of a triple exhibit of rats, puppies and pigs, two of each, one milk fed, the other "live stock" at the show consist- the diet. In each case, although the animals were the same age, to a day, they were an amazing contrast in size and strength.

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Jersey Farm Legislation

Penn State Campaign Passes Million Mark

AMONG the important bills introduced in the last two weeks in the New Jersey Legislature, and now in the hands of the Senate Committee on Agriculture, is Senate bill No. 64, which would encourage the more efficient distribution of agricultural products in the State. Its purpose is similar to Article 13 of the Agricultural Law of New York State and is to provide for the incorporation of farm associations not conducted for profit. Another measure also relating to agricultural associations would prevent the circulation of untrue statements on the financial condition of cooperative associations and the breaking of marketing contracts or agreements made between such associations and a member.

As in many sections of the East, deer have become decidedly troublesome in some parts of New Jersey and in an effort to assist farmers who are suffering damage, the New Jersey Federation of County Boards of Agriculture has fostered a bill now in the Senate to change the hunting season for killing deer. The proposed measure would change the open season from four separate Wednesdays to consecutive days from December 16 to December 22, and permits the killing of does more than one year old in Ocean and Atlantic Counties where the excess of deer are a detriment to farm interests.

Bills Already Introduced

Bills of interest to farmers already introduced in the Assembly include a measure to require the registration of owners for all motor vehicles using the public highways and the giving of a bond approved by the Commissioner of Motor Vehicles to an amount of $5,000. Another bill aims to extend the licensing plan on dogs as in the new law of last year, which is in principle the so-called sheep law recently put on the statute books of most of the Eastern States. It gives the right to municipalities to repeal their ordinance provisions on the licensing of dogs and accept the new State law with its more stringent requirements.

The Committee on Taxation in the Assembly now has before it Assembly Bill No. 27, which makes it unlawful for any county or municipality to exceed the tax rate of last year for the coming year. The taxation problem has become more acute each year and the agricultural interests of the State are uniting with others to limit the extent to which taxes may be forced. The bill also provides for a definite reduction in the taxes on real and personal property commencing with 1924 and running until such time as the tax rate is reduced to $2 on each $100 valuation, the sliding scale being five points each year.

Notes from the Organizations

At the annual meeting of the New Jersey Alfalfa Association, recently held in Trenton, N. J., the following officers were elected: President, George N. Rexon of Haddonfield, N. J.; Vice Presidents, D. D. Walker and H. R. Cox of New Brunswick, N. J.; and Treasurer, Dr. Frank App of Trenton. It was reported that more than 15,000 acres of alfalfa were grown in New Jersey last year, while an even greater acreage is promised for the coming season.

Indications point to a big "crop" of baby chicks from the large hatcheries of Hunterdon County, N. J., while demand for chicks from flocks of known parentage likewise promises to be large. Officers of the New Jersey State Poultry Association for the coming year are: President, B. S. Ellis of Vineland; Vice President, J. I. Lyle of Plainfield; Secretary, William E. Allen of New Brunswick, and Treasurer, Harry Ober of Lakewood.

NEW JERSEY BEEKEEPERS

The recent Annual Convention of the New Jersey Beekeepers' Association was an exceedingly interesting one. The attendance was smaller than at some previous conventions, but the interest, I believe was much greater.

Discussion of hive sizes seemed fairly to indicate that those beekeepers that have tried the larger size hive, have been disappointed and that they felt at this time that the standard 10 frame Langstroth hive is still the best hive to use. The food discussion seemed to show that for New Jersey conditions, bees should be fed approximately 10 pounds of sugar syrup in the fall after brood-rearing had ceased and that they should also be insulated with some sort of packing material. The food which the majority of bees in the State have in winter is of such a nature that there is considerable accumulation of feces and in those winters when the bees do not have frequent opportunity for flying, there is a considerable loss from dysentery. It would seem, therefore, that both insulation and sugar syrup feeding for a greater part of New Jersey at least are necessary for best results.—E. G. CARR.

PENN STATE CAMPAIGN PASSES MILLION MARK

The Pennsylvania State College emergency building fund campaign is now well started on its second "lap" in the drive for the goal of $2,000,000. The half-way mark of one million was reached a few days ago when a check for $21,349 was turned over by the alumni athletic advisory committee of the college, representing the net proceeds of the Tournament of Roses football game played by the Penn State team in California on New Year's day.

This gift, which is the largest single subscription recorded in the first million dollars in pledges, will be used in furnishing the new Varsity Hall or athletic training quarters building to be erected through the emergency building fund. It is expected that work on the construction of this building will start during the present year.

The campaign is progressing slowly but surely, over one-third of the graduates having already subscribed.

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For spraying potatoes, vegetables, fruit trees, grapes and berries. For whitewashing, spraying, disinfectant, fly oil, etc., for washing autos and windows—it does many jobs and does every job well.

Galvanized steel or solid brass tank holds four gallons—a few strokes of pump compresses air enough to discharge contents—brass non-clog nozzle—fine mist or coarse spray as desired.

Sold by hardware, implement and seed stores—Insist on a genuine Smith Banner to insure against disappointment. If your dealer cannot supply you, write us direct.

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The OSPRAYMO LINE

You must spray to get fine fruits, vegetables, shrubbery, flowers. Let our catalog tell you about the famous *High-power Orchard Rigs, Red Jacket and Yellow Jacket Traction Potato Sprayers, Bucket, Barrel and Knapsack Sprayers, Hand Pumps, etc.*

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An OSPRAYMO sprayer means one that will make your work effective. Suction strainer brushes, mechanical agitators. High pressure guaranteed. Send today for late catalog. Don't buy any sprayer till it comes. Local dealers at many points. Address

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Lyman's Genuine Grimm Alfalfa

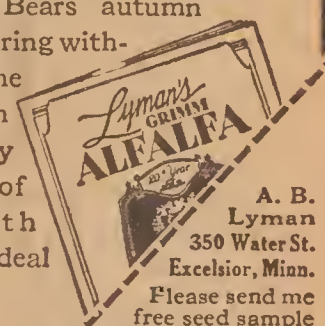
The original field planted by Wendelin Grimm in 1857, still bearing. *Carver County, Minn.*

For rapidly maturing, winter-proof alfalfa, insist upon Lyman's Pure Grimm Seed.

Heavier, Enduring Crops

Common alfalfa winter-kills, Lyman's Grimm, acclimated to Northwest temperature extremes through 65 years of culture, endures year after year, yielding full, perfect crops. Comes directly from the strain originally imported by Wendelin Grimm. Develops earlier in spring than any other variety. Three to four sturdy crops each year. Affidavit of genuineness accompanies every order.

All seed scarified, assuring maximum germinating power. Only a thin seeding necessary to produce a heavy crop. Bears autumn cutting or pasturing without injury. The cheapest protein feed you can buy—not a bit of waste. Fourth growth makes ideal hog pasture.



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Introducer of Grimm Alfalfa

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Time will mean money to you, Mr. Farmer, one of these days

—when spring comes on, when the sun begins to shine.

The acres you plow, or harrow, or sow, each day will depend entirely upon the good condition of your team.

Condition them now with a course of

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You can feel it on the lines

It helps them shed their winter's coat, whets their appetite, tones up their digestion, cleans out the bowels and kidneys, drives out the worms.

Feed your workers Dr. Hess Stock Tonic and you will soon discover that you have a team before you that can do an honest day's work, without a pant or a tremble of the muscle. They will be there for business—and willing.

Excellent for mares in foal—and colts of any age. GUARANTEED.

Tell your dealer how many horses or mules you have; he has a package to suit.

I spent 30 years in perfecting this Tonic.
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Honest goods—honest price—why pay more?

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Keeps the Dairy and Stables Healthful and Clean Smelling

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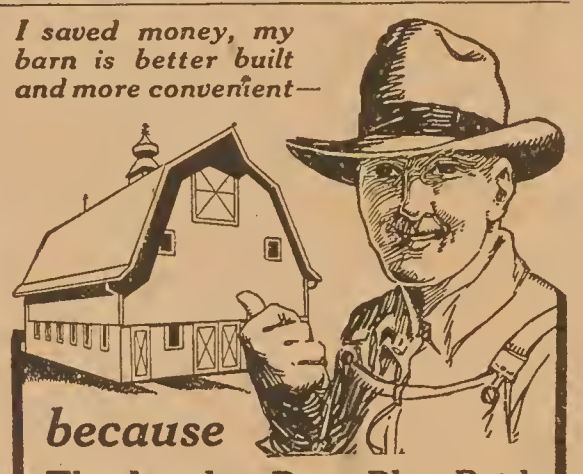
I saved money, my barn is better built and more convenient—



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10 Court St. (*Est. 1867*) Fairfield, Iowa

Farmers Forced to Organize

Because They Were Between Two Fires

By J. D. MILLER

ONE of the great industrial and economic movements of the last half century has been the centralization of the control and operation of industries. The village manufacturers have been displaced by great corporations owning and operating large central plants with sales agencies throughout the civilized world. Each of these great organizations is composed of many persons, united in corporate form, and engaged in collectively *producing* and *selling* their respective wares. From them the farmers must purchase their supplies.

While these great organizations sometimes abuse their power, as a whole, they stand for efficiency and economy, and are now such a part of the business structure of the country that their overthrow would stagger commerce. Nor was this process of centralization in manufacturing industries alone. The purveyors of farm products did likewise until in course of time farmers found that usually the buyer of their products was a non-competitive one, and that they were the one great group that bought at retail, sold at wholesale, and in both cases at prices dictated by others.

Finding themselves thus caught between the upper and lower millstones, farmers sought a remedy, and soon found that they alone were to blame for their condition, in that while this process of centralization was going on all around them, they and they alone continued to attempt to market singly. Through great tribulation they came up to higher ground from whence they could see that it was their clear duty to follow in part the course of those engaged in other industries and to unite in large numbers and engage in collective marketing.

The past ten years have therefore witnessed a remarkable growth and development of farmers' cooperative marketing associations. In ever-increasing numbers they have been formed and it is estimated that through them one billion dollars' worth of farm products will be marketed in the year nineteen hundred and twenty-three. Experience has shown that this cooperative movement will in due time eliminate the speculator and gambler in foods, but need not mean the elimination of middlemen performing necessary functions.

Wages or Commissions?

It is immaterial to farmers whether the expenses of distributing their products are paid in the form of wages or by a commission to old agencies having marketing facilities if and only if, such old agencies distribute economically at a fair profit and do not use their control of marketing facilities to unduly depress prices to farmers or to unduly increase prices to city consumers. Whenever and wherever such old agencies refuse to so cooperate farmers do not hesitate to create distributing agencies of their own.

In solving the complex marketing problems, it has been found that, as to commodities highly perishable, as is milk, means should be adopted by which all surplus may be manufactured into by-products, and as to all commodities, marketing should be orderly so that each producer may always have a market and that each city should always be supplied with quantities adequate, and never more than adequate, to its needs.

The general public now recognize that these associations are for the public good. Such opposition as they encountered in the early days was based upon a misunderstanding of their objects and purposes. By marketing their products efficiently farmers will receive a higher price without increase of price to consumers, while such higher prices to farmers stimulate production, insuring adequate future supplies.

In a larger way, these associations will promote public good, in that through them the farmers will take the place to which they are entitled in the business life of the country. As members of these commercial organizations, farmers must earnestly consider economic problems theretofore seen as through a glass, darkly, and the discussion of which was considered as more or less academic. Selling their products singly to the first-comer, they were remote from world activities and world problems. Now, the disorder in Russia and the cheap money of Germany are reflected in the check farmers receive from their association.

It has been charged that these associations are socialistic. This is error. They are an aggressive negation of socialism. There is no community of property, but only a temporary blending of products for marketing, and this for private gain. Based on the right of private property, they can not exist with State socialism and it may be that they have come in to being for such a time as this when by their weight thrown into the balance, they may be the deciding factor in preserving the ancient landmarks, while by increasing the buying power of forty million people, they bring increased prosperity to all industries.

WORLD'S DAIRY CONGRESS TO BE HELD AT SYRACUSE

THE greatest gathering of dairy interests that the world has ever seen will be held at Syracuse, N. Y., during the second week in October. The decision just rendered by the officials of the World's Dairy Congress to hold its show at Syracuse is fine recognition of the great dairy interest of New York and other Eastern States. The show will be attended by representatives from nearly every country in the world. Speakers of world-wide renown will discuss the farmers', and particularly the dairymen's, many problems. Exhibits covering every phase of milk production, manufacturing and distribution will be given, and the Congress will be attended by hundreds of thousands of people. The facilities at the State Fair Grounds at Syracuse, the hotels and the homes of the city will all be taxed to the limit to house and provide entertainment for the thousands who will attend the show.

For many weeks the citizens and press of Syracuse, farm leaders, farm organizations, the New York State College of Agriculture and the State Department of Farms and Markets have been busy trying to convince the officials of the World Congress that New York State, because of its large dairy interests, and the city of Syracuse, as the center of the State, was the logical place to hold the show. American Agriculturist is the only farm publication in the East that has worked with other leaders to bring the show to Syracuse. It is one of the fundamental policies of this publication to constantly emphasize the importance of eastern agriculture and holding the World's Dairy Congress at Syracuse will do much to advertise and emphasize the dairy and other farm interests of this section.

POOLED PRICE LEADS COUNTRY

Some statements by Albert Manning, Secretary of the Dairymen's League Cooperative Association in regard to the December pool price are so important that they should have consideration by every farmer. Mr. Manning says:

"So far as we have received reports as to the prices received by producers in other large milk consuming centers of the country, our net pooled price of $2.75 exceeds any other price from 25c to 50c per hundred and upward."

Progress is determined by comparisons. The net pooled price of $2.75 for December compared with price for

UNADILLA SILOS

Easy to Use

A Silo is in use twice daily for 6 or 7 months. Convenience and labor and time saving is important.

In a Unadilla, silage is *shoved* out at the door level. Gravity carries it "like water over a dam". The air and water-tight doors cannot stick. There is, therefore, no pitching of tons of silage overhead. The door fasteners form a permanent safety ladder — convenient, secure.

Write today for big, new illustrated catalog which shows Unadilla features of convenience not found in any other silo.

Get our special early order discount offer.

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Just send me your name and address and I'll send you free, all charges prepaid, this liberal size sample box of Corona Wool Fat Compound. I am making this offer so you can see for yourself what a wonderful healing ointment it is—how quickly it will heal any cut or wound on man or beast. For chapped hands—frosted feet—chilblains—cuts—bruises, etc. it has no equal. Also for wire cuts—galled necks—sore shoulders—split hoofs, sore feet, scratches—sore teats on cows—caked udders, etc. it is unexcelled. It

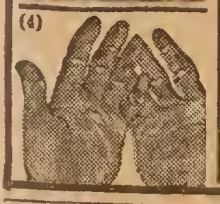
C. G. PHILLIPS
TheCoronaMan

Heals—Seldom Leaves a Scar

Many a valuable animal has been saved disfiguring blemishes by Corona Wool Fat. Corona is made from oil extracted from the wool of sheep—it is very penetrating—the only preparation that will penetrate a horse's hoof—yet it will not burn or blister—very soothing and healing.

Keep in Home and Barn

Keep a can of Corona in the home and in the barn as a simple, efficient "first aid" remedy for all cuts and wounds of man or beast.



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C. G. Phillips, Pres.

THE CORONA MFG. CO.

11 Corona Block **Kenton, Ohio**

Steel Wheels

Cheaper than any other wheels, figuring years of service. Make any wagon good as new. Low down—easy to load. No repairs. **COST LESS**

EMPIRE Reduced prices **Catalog free.** **Mfg. Co.,** Box 279 **Quincy, Ill.**

December, 1921, shows an increase of 36c a hundred, or about three-quarters of a cent a quart. Again the average December price for 10 years preceding 1016, when the League first began to operate, was $1.68, on a basis of 3 per cent milk at the 200 mile freight zone. Again the comparison is in our favor, although it is impossible to determine exactly just what part of this difference in price may be due to the general price levels to-day compared with 1916. But to go a step further to substantiate the claim for the result of organization, we submit the following New York pre-war prices of December, 1913, compared with December, 1922:

	Dec. 1913	Dec. 1922	Per cent
Milk, cwt....	1.625	2.75	169
Corn, bu.....	.81	.83	103
Wheat, bu....	.93	1.18	127
Hay, ton.....15.30		14.10	92
Potatoes, bu..	.80	.60	75
Apples, bu....	.97	.81	84
Oats, bu.....	.47	.51	109

This again shows that the price our pooled members are receiving for their December milk is 169 per cent of what the farmers received before the war and before the League was in operation. Also the percentages prove that milk has increased in far higher percentage than has the above list of staple farm products. This indicates that the great financial handicap under which our members are laboring at the present time is not due entirely to the low price received for milk, but to the still lower price received for most of our staple farm products and the continued high prices of practically everything we must purchase.

These comparisons indicate progress. These milk prices prove the advantage of cooperatively marketing our milk and remove any question of doubt as to the necessity, if we are going to continue to progress, of standing by the organization.

Conditions are daily looking brighter, and regardless of reports by those antagonistic to the League as to the possible number of February withdrawals there is no question in the minds of your officers but that these reports are greatly over-estimated and that the situation, so far as the League is concerned, looks brighter than it has for a long time.

SHIPPING MILK BY TANK CARS

Considerable interest is developing in milk sections in the use of tank cars for carrying milk and cream. These cars have several containers, each holding approximately 645 gallons. The containers are so insulated that there is little variation in temperature, no matter what the weather is.

Recently in sending a car of milk from New York to the National Dairy Show the temperature of the milk came up only two degrees in a trip of sixty hours. Arrangements are made so that the containers can be lifted by cranes from the car and loaded on trucks to be taken to the bottling stations. It is claimed that the use of tank cars will save trucking, freight rates and much labor, and that we may expect a considerable development of this means of transporting milk. It is predicted that the area from which each city gets its milk will be widened.

COW TESTING ASSOCIATION KEEPS COSTS DOWN

On July 1, 1922, there were in operation in the United States 513 Cow Testing Associations, including 12,458 herds and 215,321 cows. Wisconsin and Minnesota, two of the largest dairy states, showed great gains in testing associations. During the year the number in Wisconsin grew from 103 to 127. Incidentally, these two states are progressing very rapidly in all dairy matters, including their methods of marketing dairy products. Eastern dairymen have got to watch their step to meet this high-class competition of the West.

One of the ways to meet competition is to keep the cost of production down. There is no better way of doing this than in keeping records in Cow Testing Associations, or otherwise, to find out what each individual cow of the dairy is doing.

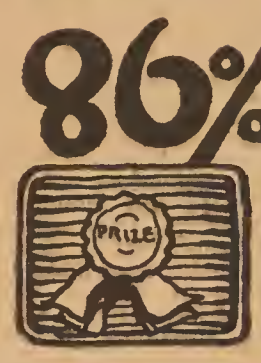
How do you account for this?

Why is it that there are approximately as many De Lavals in use to-day as all other makes of separators combined? For just one reason, which is based on the actual experience of several millions of users over a period of forty years, who have found it the *most satisfactory*, in that it skims cleaner, lasts longer and is easier to operate and clean than any other.

98% Of the best creameries use De Laval Separators

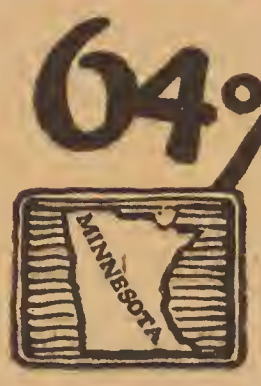
The creameryman knows the best cream separator. Practically all of them use De Lavals. Why? Because they have found by testing the skim-milk, and by experience, that the De Laval is the most profitable. They know that a poor separator can soon waste all their profit and that a De Laval soon pays for itself. The De Laval you use is built on the same principle as the creameryman's.

86% Of the exhibitors at the National Dairy Show use De Laval Separators



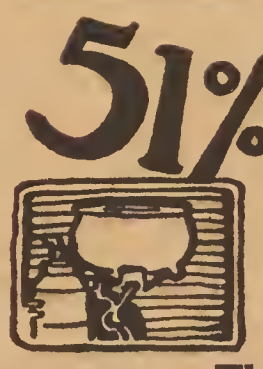
At the 1922 National Dairy Exposition an investigation among the exhibitors of purebred dairy cattle disclosed the fact that 86% of them use De Laval Separators. These exhibitors of purebred dairy cattle are the cream of the world's best dairymen—they know the best separator and use it. Butter made from De Laval cream also won first place in *every class*.

64% Of the Separators in the leading butter state are De Lavals



More butter is made and more cream separators are used in Minnesota than in any other state. According to an investigation by a prominent farm paper, 64% of the cream separators in Minnesota are De Lavals—almost two out of every three. A remarkable record—which simply drives home the fact that the more people know about separators, the more they appreciate De Laval.

51% Of all cream Separators are De Lavals



—according to an investigation by a group of prominent farm papers of wide circulation. There are, still, many inefficient and worn-out separators in use today which are wasting enough butter-fat to pay for new De Lavals. Get the most out of your butter-fat with a new De Laval. See your De Laval Agent or write us.

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NEW YORK, 165 Broadway CHICAGO, 29 E. Madison St. SAN FRANCISCO, 61 Beale St.

Send for free book "Molasses a Feed"

More Milk

Molasses adds materially to the palatability of the ration fed to dairy cows. And that means the cows enjoy their food more—get more nourishment out of it—and that results naturally in more milk.

And for horses, hogs and sheep molasses is just as palatable, just as valuable. The price of good molasses is *very low* now.

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They don't depend alone on hoops

THE Harder patent Spline Dowel and square tongue and grooved staves make Harder Silos different from the rest. The toothed edges of these dowels penetrate the adjoining staves and make slipping and shearing impossible.

Every community has leaning silos, but they are not Harders. You can rely upon your Harder to stay absolutely air tight.

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OUR book, "Saving with Silos," was written for *you*. It is free. Send for it.

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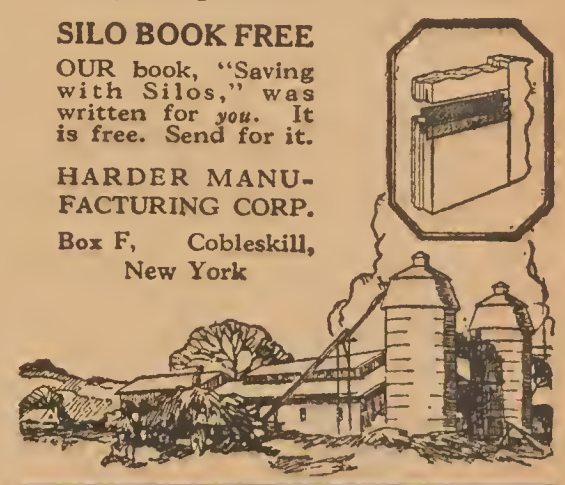

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R. F. NEUBERT CO., Box 822, Mankato, Minn.

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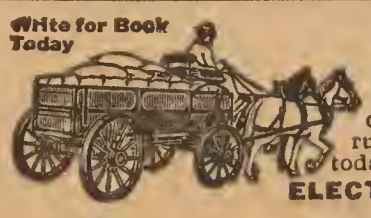

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High or low wheels—steel or wood—wide or narrow tires. Steel or wood wheels to fit any running gear. Wagon parts of all kinds. Write today for free catalog illustrated in colors.

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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

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Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

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To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

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Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

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REAL RED REDS, Single Comb, purebred, deep, rich, red, vigorous Cockerels and Pullets; three, four, five dollars; satisfied customers. MEADOWBROOK FARM, Route 3, Box 210, Lancaster, Pa.

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HATCHING EGGS, from Pure Bred, Reds, Rocks, Minorcas, Leghorns, Anconas. Fine breeding males reasonable. L. D. CLARK, Binghamton, N. Y.

A FEW MORE LIGHT BRAHMA COCKERELS $2.50 each; cocks $5 each, also Buff Orpington Cockerels $2.50 each. J. T. EAGAN, Lebanon, N. Y.

STOCK EGGS—Chicks White Leghorns, Reds, Black Minorcas, White China Geese, prices reasonable. BROOKSIDE FARM, Keymar, Md.

WHITE WYANDOTTE COCKERELS. Mammouth Pekin ducks. Pearl Guinea. LAURA DECKER, Stanfordville, N. Y.

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BROWN LEGHORN COCKERELS. Tormohlen everlay strain. SUNNYSIDE FARM, Emporium, Pa.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

LARGE AYLESBURY DUCKS; pairs $7. M. V. CALDWELL, Lisbon, Ohio.

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TURKEYS—Hens and Toms—with size and quality. Pairs and trios no akin. Mammoth Bronze, Bourbon Red, Narragansett, White Holland, write, WALTER BROS, Powhatan Point, Ohio.

MAMMOUTH BRONZE TOMS. LAURA DECKER, Stanfordville, N. Y.

WHITE HOLLAND TURKEYS. MRS. L. J. CLOSE, Locke, N. Y.

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HONEY—Purity guaranteed, box of four ten pound pails, here, clover-basswood, $5.60; buckwheat $4.80; 60 pound cans $7.80 and $6.30. Ten pounds prepaid, 3rd. zone, $2.05; buckwheat $1.80. WILCOX APIARIES, Odessa, N. Y.

PURE HONEY—Circular free. ROSCOE F. WIXSON, Dept. A. Dundee, New York.

DOGS AND PET STOCK

FARM DOGS—English shepherds, pups and grown dogs, guaranteed heel drivers, natural instinct to handle cattle. Credit given if requested. W. W. NORTON, Ogdensburg, N. Y.

FLEMISH GIANT RABBITS, Exclusively. T. A. WILSON, Marion, N. Y.

COLLIE PUPS PAINE'S KENNELS, South Royalton, Vt.

CATTLE

BULL CALF—15 Registered, short horns. Will exchange for Guernseys. ALEX. FISHER, Madrid, N. Y.

REAL ESTATE

CALIFORNIA STATE LANDS—The State Land Board of California has for sale 87 irrigated farms at Ballico, near Merced, in San Joaquin Valley on main line Santa Fe Railway. The State makes it possible for you to own one of these farms, only requiring 5 per cent of purchase price, remainder in semi-annual installments extending over 36½ years with 5 per cent interest annually. Here is an opportunity to become a home owner on terms as favorable as renting. It will be a long time before any more land will be available under such generous provisions. Money advanced on improvements and dairy stock. Those already located very enthusiastic; you can farm all year in California; all deciduous fruits profitably grown; alfalfa a paying crop, ideal conditions for stock and poultry; many persons long some day to make their homes in California, with its winterless climate, plenty of sunshine, seashore and mountains, fertile valleys, paved highways, very efficient marketing, excellent schools; State Board's pamphlet, also Santa Fe folder describing San Joaquin Valley mailed free on request. C. L. SEAGRAVES, General Colonization Agent, Santa Fe, 951 Railway Exchange, Chicago, Ills.

TO SELL—direct from owner. 348 acres level rolling grain dairy farm. Well equipped with stock, tools, hay, grain, ensilage. Excellent buildings. 1½ miles level Macadam road to D. L. & W. Railroad town, Bordens, high school, bank. $10,000 easy terms, Box 128, Nichols, N. Y.

2 FARMS IN NORTH DAKOTA to trade for farms in New England States, also tractor plowing outfit, pulls 12 plows, to trade for eastern property. SHURTLIFF, Mannsville, N. Y.

FOR EXCHANGE; Small farm, for vacant lots. Also other farms for exchange for income property. S. M. BREED, McDonough, N. Y.

FOR SALE. Two of the best fruit farms in Western New York, near Lake Ontario. SETH J. T. RUSH, Morton, N. Y.

AGENTS WANTED

AGENTS WANTED—Agents make a dollar an hour. Sell Mendets, a patent patch for instant mending leaks in all utensils. Sample package free. COLLETTE MFG. CO., Dept. 140, Amsterdam, N. Y.

AGENTS—Our soap and Toilet article plan is a wonder. Get our free sample case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

RAW FURS AND TRAPPERY

WE SOLICIT LARGE AND SMALL country consignments of beef, horse hides and kindred lines. Prompt and fair returns. Write for tags. PENNSYLVANIA HIDE & LEATHER COMPANY, Scranton, Pa.

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

MISCELLANEOUS

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

PRINTING—1,000 envelopes, noteheads or cards $2.75 postpaid. Samples and price list free. ANDERSON PRESS, Beacon, N. Y.

FERRETS—Get our free booklet and prewar prices on sound healthy Ferrets. W. A. JEWETT & SONS, Rochester, O.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

$5 REWARD will be paid for the correct address of W. B. Decker. Box 139, Station F, New York City.

FEMALE HELP WANTED

WANTED—Single women as attendants in State Institution for feeble-minded; salary, $44 per month and maintenance. Apply stating age and inclosing letter of reference (from previous employeer if possible) to SUPERINTENDENT, LETCHWORTH VILLAGE, Thiells, N. Y. Rockland Co.

STANCHIONS

CRUMB'S STANCHIONS are guaranteed to please the purchaser. They are shipped subject to trial in the buyer's stable. They are right. Send for booklet. WALLACE B. CRUMB, Box A, Forrestville, Conn.

HELP WANTED

WANTED—Reliable couple under 40, no children or tobacco, for boys' school. Principal work for man repairing, painting and glazing. Wife housekeeper of dormitory. State salary expected with maintenance, also supervisor for cottage of boys. For particulars write, SUPT. COUNTY TRAINING SCHOOL, Lawrence, Mass.

SWINE

FOR SALE—Chester White Boar, Wildwood Again, No. 104635, farrowed March 1921, stands 3 ft. high, 70 in. long. J. S. BOYER, Wolcott, N. Y.

SEEDS AND NURSERY STOCKS

SEED POTATOES—Russet Rural Variety. Selected twelve years. FAIRACRES POTATO FARM, E. R. SMITH, Specialist, Kasoag, N. Y.

SEED POTATOES, Dibble Russet, raised from certified stock. C. B. GEIGER, Saegersville, Pa.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

Eighty Years With Farm Machinery

(*Continued from page* 87)

made in local blacksmith shops. The singletrees had no iron on them, but simply a notch cut on each end.

"Our grain was cut with a reaping-hook, a blade about ten inches long with an iron rod extending out about twelve inches and bent, with a wooden handle. We caught the top of the grain with one hand and used the reaping-hook with the other hand. Next came the cradle. The blades for the cradle were shipped in, but the balance of the implement was made locally. The cradle and reaping-hook were made in local blacksmith shops.

"The first wagons we had were ox carts with two wheels. They were made in the local blacksmith shop. Then came a rudely constructed shop-made wagon, made by local men. Our first manufactured wagons were shipped in from Tennessee after 1846."

In 1842 Cyrus Hall McCormick sold seven of his "Virginia Reapers," first practically demonstrated 11 years before. Up to that time he had sold just nine reapers. In that year William Parlin started the little blacksmith shop at Canton, Ill., that was to become the first real plow factory in this country or in the world.

The first steel plow had been made by John Lane at Chicago out of an old saw blade in 1833, but the steel plow as an item of average farm equipment was still many years in the future. The chilled plow had been invented many years before, but James Oliver's first patent was not issued till 1868 and the implement was not perfected until 1873. The patenting of the first successful riding plow was still 22 years in the future—and so on down the list of the farm implements that now seem to us to have taken on a respectable antiquity.

Eighty years ago we were at the beginning of the transition from farming by hand to the period of mechanical husbandry; and then we were also at the beginning of the country's remarkable period of expansion and growth. No historian that I know of has touched more than lightly and casually upon the part that the development of efficient farm implements and their production in quantity to meet the demand played in the pioneering and settlement of the great West which was, after all, the longest step toward the fulfillment of our Republic's destiny.

In 1842 we still farmed toilsomely and scantily by hand. Then came the earlier implements that made farming more attractive and more profitable, but for nearly two full-time generations the horse furnished the only practicable power the farmer could employ save the two hands of himself and his hired man. Now, we are well advanced in the third principal phase of the development of farm machinery—the age of power farming; and most of us are as little conscious of the great transition that is taking place in this respect as the farmers of fifty or eighty years ago were of what was then going on in our industry and in theirs.

When I think of what the invention and development of more modern farm implements meant to the progress of our civilization throughout the latter part of the nineteenth century, I often wonder what the wider and larger effect will be when we have reached the high point in the development and use of power machinery on the farm.

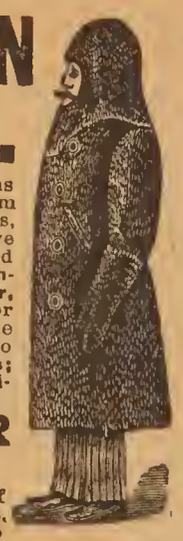
The Era of Internal Combustion Engines

Steam has so far played only a small direct part in the products of the farm implement industry or in agriculture. We had to wait for the full development of the internal combustion engine before we could improve upon the horse as a source of power on the farm. The first internal combustion tractor was offered for sale in the early 90's, but it was not until 1903 that the real development of gasoline and kerosene tractors began. It is of record that the first successful manufacturer of tractors had only 300 tractors in the field by the spring of 1908.

The tractor as a source of farm power, marking the beginning of the era of power farming, seems a familiar agency for doing the hardest of all farm work, yet we note in the last census that only 3.6 per cent of America's 6,500,000 farms were equipped with tractors. At present, according to trade estimates, there are about 400,000 tractorized farms, or 6.1 per cent. Obviously there is still a long way to go before this simplest of power plants reaches anything like general use in agriculture.

Still younger and much less familiar to the nonfarming public and, in fact, to a considerable part of our agricultural population, is the direct combination of the internal combustion principle with farm machinery. I refer to automotive agricultural machines furnishing all their own tractive and operative power. Here the room for modification, improvement and invention is wide and the field attractive. It may well be believed that within another generation we shall see changes in farm equipment along this line that will mean still lower labor costs, with corresponding benefits to all concerned.

LET US TAN YOUR HIDE.



Horse or Cow hide, Calf or other skins **with hair or fur on,** and make them into coats (for men and women), robes, rugs or gloves when so ordered; or we can make your hides into Oak Tanned **Harness or Slaughter Sole or Belt Leather; your calfskins into Shoe Leather,** colors Gun Metal, Mahogany Russet or lighter shade. Calfskins tanned in the lighter shades of shoe leather, also make **elegant stand and table covers;** great for birthday, wedding and holiday gifts.

LET US FIX YOUR WORN FURS

fashion, repair and reshape them if needed. Furs are very light weight, therefore it would **cost but little to** send them in to us by Parcel Post **for our estimate of cost,** then we will hold them aside awaiting your decision. Any estimate we make calls for **our best work.**

Our illustrated catalog and style book combined gives a lot of useful information. It tells how to take off and care for hides. About **our safe dyeing process** on cow and horse hides, calf and fur skins. About dressing fine fur skins and making them into neckpieces, muffs and garments. About our **sharp reduction in manufacturing prices.** About Taxidermy and Head Mounting.

The Crosby Frisian Fur Company,
571 Lyell Ave., Rochester, N. Y.

Color Your Butter

"Dandelion Butter Color" Gives That Golden June Shade and Costs Really Nothing. Read!

Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade to bring you top prices. "Dandelion Butter Color" costs nothing because each ounce used adds ounce of weight to butter. Large bottles cost only 35 cents at drug or grocery stores. Purely vegetable, harmless, meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless.

Wells Richardson Co., Burlington, Vt.

$24.95 Upward *American* CREAM SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines. Get our plan of easy

MONTHLY PAYMENTS

and handsome free catalog. Whether dairy is large or small, write today.

AMERICAN SEPARATOR CO.
Box 7052 Bainbridge, N. Y.

SILOS Our easy terms are all we need to talk about. Quality Silo does its own talking. It is a thoroughbred. Agents wanted.

QUALITY MFG. CO., HAGERSTOWN, MD.

HEAVES Is your own horse afflicted? Use 2 large cans. Cost $2.50.

Money back if not satisfactory

ONE can at $1.25 often sufficient. In powder form.

Most for cost

30 years' sale

NEWTON'S

A veterinary's compound for Horses, Cattle and Hogs. Heaves, Coughs, Distemper, Indigestion. Worm expeller. Conditioner.. At dealers' or by parcel post.

THE NEWTON REMEDY CO., Toledo, Ohio

FREE BOOK on CONTAGIOUS ABORTION

Describes cause, effects and treatment; tells how farmers in all parts of U. S. are stopping the ravages of this costly malady.

Write for free copy today.

ABORNO LABORATORY
11 Jeff Street, Lancaster, Wis.

DANA'S EAR LABELS

Are stamped with any name or address with serial numbers. They are simple, practical and a distinct and reliable mark. Samples free. Agents wanted.

C. H. DANA CO., 33 Main St., West Lebanon, N. H.

GIVEN

SENECA BOY SCOUT CAMERA 1 ROLL FILM
INGERSOLL MIDGET
EVEREADY SPOTLIGHT 300 FT. RANGE

Your choice of these and dozens of other useful premiums, retail value $2.50 and up, given absolutely free, for selling only 40 large packets of **guaranteed fresh,** selected garden and flower seeds at 10c a packet. Send no money. We trust you until seeds are sold. Order today.

Eastern Seed Company, Dept. F. Lancaster, Penna.

A BETTER JOB NOW!

Learn good trade in a few weeks. 12 million autos, trucks and tractors need service. Repairmen needed. Write today for FREE catalog giving full particulars.

Michigan State Automobile School, 682 Auto Bldg., Detroit, Mich.

We Back Our Guarantee

Subscribers Reimbursed for Loss With Advertisers

SOME time ago, Mr. Wheeler Kunkle of Dallas, Pa., answered an advertisement in the American Agriculturist. The advertsement was of the Boston Mail Order Company, and at the time of its acceptance, under the old management, the firm was thought to be reliable. However, it went into bankruptcy shortly after, and several claims for the loss of different amounts came into the Service Bureau.

Although the new management of the magazine had not had any part in accepting the advertisement, we felt that the guarantee printed then, as now, should be interpreted in the strictest possible sense. We therefore sent Mr. Kunkle a check for $2.98 to cover his loss because of the failure of the Boston Mail Order House.

We were only too glad to make good to our subscriber, the money loss he had incurred, and thought the matter ended there. However, Mr. Kunkle felt differently about it. He returned our check with the following letter: "Enclosed please find $1.00, for which renew my subscription for American Agriculturist for one year. Also find check which you sent me for Boston Mail Order account, as I cannot expect you people to pay other people's debts. Kindly thanking you for past services."

As a matter of fact, we would have made good Mr. Kunkle's loss even if it had been for a much greater amount, but under the circumstances we were glad to extend his subscription and to assure him that the services we had rendered were simply in accordance with our policy of standing behind our advertisements.

The guarantee which we give, and which is printed on another page of the magazine, reads as follows: "The American Agricuturist accepts only advertising which it believes to be thoroughly honest. We positively guarantee to our readers fair and honest treatment in dealing with our advertisers. We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised. To benefit by this guarantee subscribers must say: 'I saw your ad in the American Agriculturist when ordering from our advertisers.'"

Readers of the American Agriculturist need have no fear in taking this guarantee at its face value.

MORE "GUESS-WORK GLASSES"

"I am very grateful for the assistance you gave me. I don't believe I would have received anything if it had not been for you."

It was thus that Mrs. L. H. M. of Grand Valley, Pa., wrote us when she received a check for $5.49 from a spectacle house in Chicago. We told Mrs. M. when she put the case in our hands that we had frequently warned our readers to have nothing to do with these houses, which pretend to be able to supply correct glasses by mail. Although they urged Mrs. M. to send another order, she was glad enough to get her money, and did not take up the suggestion that she send it back for another pair of "guess-work glasses."

LOOK OUT FOR THIS MAN!

A general warning which readers in Ohio may especially take to heart has just been issued by the International Magazine Company, which publishes Good Housekeeping. A young man of about 25 years old, who is a smooth talker and usualy represents himself as a medical student, is canvassing for subscriptions to the magazine and offering a premium of six pieces of Pyrex Ware. The agent in question, who uses the names of Thompson, McGuire, Sawdon or Sandow and Stone, give an official receipt for a three-dollar subscription, and that is the last heard of him.

Sometimes this man works in collaboration with a partner, and sometimes he goes it alone. In any case, he has no authority to offer the magazine either with or without the premium. One of our readers was recently taken in by this swindler, and upon reporting the case to the district manager of the International Magazine Company, we learn that they had sent out a poster offering a reward of $50 for the arrest and conviction of this man.

If he canvasses your neighborhood, report immediately to your police department, and notify the agency bureau of the International Magazine Company, 119 West 40th Street, New York City.

THE CHECK CAME PROMPTLY

A check for $29.49 closed the case of Mr. Philip Papke, Fillmore, N. Y., against a mail-order company in Minnesota. Mr. Papke had waited a reasonable time after sending his order and then wrote the company twice before receiving any return with a request for a duplicate order. His check was returned as having been paid, but the order never came, nor did he hear anything further from them. Early in January, Mr. Papke turned the case over to the Service Bureau of American Agrculturist, and the company reported that the order had been shipped, but was doubtless lost in the mail. They enclosed a check for the full amount of the order, and apologized for any inconvenience which had been caused. Both the mail-order company and Mr. Papke thanked the Service Bureau for helping straighten the matter out.

Pruning the Pear

(*Continued from page 91*)

branches will then form an outward position while the branches higher up will form an upward growth which after the tree reaches full size must be kept cut back in order to prevent the tree from growing too tall.

Such varieties as Winter Neles, and the Lawrence have a tendency to develop the natural form. This form of development means a selection of three or four scaffold limbs and then allowing the tree to develop as it will with little consideration of shape or form. Such trees are usually misshapen, weak at the crotches, break down early, form too compact heads, and develop much, but inferior fruit. On the other hand, if the tree has been so neglected it may be pruned, the fruit-bearing branches, to a limited degree, selected and the head opened up to light and air one may expect a fair return of fruit.

In shaping the vase form of pear tree the straight one year old shoot should be cut back to from 18 to 24 inches from the ground. After the new or secondary shoots are well formed, three main limbs should be selected and all others removed. The three limbs then forming an inverted tripod should be cut back to about 18 or 20 inches from the crotch. If dwarf trees are so developed their limbs should be cut back to about 12 inches from the crotch. Only the buds on the upper five or seven inches of these three limbs should be allowed to develop. The following spring, select two of the most vigorous sprouts from each limb and remove all the others. These should now be pruned back leaving 12 or 18 inches of growth from the point where the three limbs were last pruned. This operation is repeated until the desired head and height are formed.

Where the pear orchards are intercropped with currants or gooseberries or some other fruit or even vegetables, the plowing and general cultivation cuts off a certain percent of the root system which, if the tree has a normal growth, tends to induce the production of fruit spurs. Therefore cultivation of other crops in the pear orchard might be considered as part of the pruning practice.

If the pear tree has the bearing habit, pruning, it is true will seldom influence the tree toward bearing more fruit but will mean a larger, finer quality, more uniform size, better formed and more saleable fruit.

No good farmer would neglect to harvest his hay, but some dairymen fail to harvest ice, which is almost as necessary as hay in the production of market milk.

$7.50 After 30 Days Free Trial

The Belgian Melotte Separator — with the wonderful Self-Balancing Bowl. No other like it.

30 days' free trial—then, if satisfied, only $7.50 and a few easy payments — AND — the wonderful Belgian Melotte Separator is *YOURS.*

No Money Down!

Catalog tells all—*write.*

Caution! U. S. Bulletin 201 shows that vibration of the bowl causes *cream waste!* The Melotte bowl is *self-balancing.* Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. *The Melotte has won 26 Grand and International Prizes.*

Catalog FREE

Write for new Melotte catalog containing full description of this wonderful cream separator and the story of M. Jules Melotte, its inventor. Don't buy any separator until you have found out all you can about the Melotte and details of our 15-year guarantee which is infinitely stronger than any separator guarantee. Write TODAY.

Runs so easily, bowl spins 25 minutes after you stop cranking unless you apply brake. No other separator needs a brake. Bowl chamber is *porcelain lined.*

The Melotte Separator, *H. B. Babson, U. S. Mgr.*
Dept. 6062. 2843 W. 19th Street, Chicago, Ill.

COW TONIC

Keeps your cows in good condition. Increases the appetite, purifies the blood, aids digestion, and naturally

Increases the Flow of Milk

Dr. David Roberts Cow Tonic for sale by dealers or postpaid 50c and $5. Ask for FREE copy of The Cattle Specialist and how to get **The Practical Home Veterinarian** without cost.

Veterinary Advice Free.

Dr. David Roberts Veterinary Co., 197 Grand Ave., Waukesha, Wis.

Healthy Udders are the foundation of milk profits

THE udder and teats must be free from cuts, scratches, sores, bruises and chaps, or the milk flow shows a quick falling off.

Bag Balm promptly heals any inflammation, soreness, congestion or hardening of these tender tissues—brings about normal production by giving comfort to the cow. A reliable remedy in relieving Caked Bag, Bunches and Cow Pox.

Wherever cows are, BAG BALM should be always on hand. The big 10-ounce package costs only 60c and goes a long way.

General stores, feed dealers and druggists sell Bag Balm; or, we will send postpaid if your dealer is not supplied.

If you have never tried Bag Balm, clip and mail coupon below for liberal free sample. Give your dealer's name.

SAMPLE FREE

Dairy Association Co., Inc.
Dept. N
Lyndonville, Vt.

Dairy Association Co., Inc., Lyndonville, Vt. Please send sample package Bag Balm as per your offer.

Name.....

Address.....

Dealer's name.....

The Valley of the Giants—*By Peter B. Kyne*

THE fight is on! Bryce Cardigan, son of the blind old pioneer of Sequoia, takes up his father's battle against the unscrupulous Colonel Sceth Pennington, a newcomer in the redwood country. In doing so, he sacrifices his friendship with Shirley Sumner, the Colonel's niece.

A visit to the rival camp to thrash Rondeau, a woods-boss who has felled a tree in the Valley of the Giants, old Cardigan's sacred grove where his wife lies buried, results in a free-for-all fight unfairly incited by the Colonel, in which Shirley aids Bryce to escape. But she swears they must always be enemies.

After a visit to his own camp to discharge the drunken McTavish, Cardigan's old woods-boss, where he meets the beautiful Moira, Bryce boards the homebound logging train.

The train runs away and Bryce manages to cut out the caboose and save the lives of Pennington and Shirley. McTavish, sobered, pleads for another chance, but is refused.

"YOU'VE been drunk for fifteen days—and I'm paying you for it, Mac." Bryce reminded him gently. "Don't leave your check behind. You'll need it."

With a fine show of contempt and rage, McTavish tore the check into strips and threw them at Bryce. "I was never a mon to take charity," he roared, and left the office. Bryce called after him a cheerful good-bye, but he did not answer. For a month his whereabouts remained a mystery; then one day Moria received a letter from him informing her that he had a job knee-bolting in a shingle mill in Mendocino County.

In the interim Bryce had not been idle. From his woods-crew he picked an old, experienced hand—one Jabez Curtis—to take the place of the vanished McTavish. Colonel Pennington, having repaired in three days the gap in his railroad, wrote a letter informing Bryce that until more equipment could be delivered to take the place of the rolling stock destroyed in the wreck, the latter would have to be content with half-deliveries; whereupon Bryce irritated the Colonel profoundly by purchasing a lot of second-hand trucks from a bankrupt sugar-pine mill and delivering them to the Colonel's road via the deck of a steam schooner.

"That will insure delivery of sufficient logs to get out our orders to file," Bryce informed his father. "While we are morally certain our mill will run but one year longer, I intend that it shall run full capacity for that year. In fact, I'm going to run a night-shift."

The sightless old man raised both hands. "The market won't absorb it," he protested.

"Then we'll stack it in piles to air-dry and wait until the market is brisk enough," Bryce replied.

"Our finances won't stand the overhead," his father warned.

"I know we haven't sufficient cash on hand, Dad, but—I'm going to borrow some."

"From whom? No bank in Sequoia will lend us a penny."

"Did you sound the Sequoia Bank of Commerce?"

"Certainly not. Pennington owns the controlling interest."

Bryce chuckled. "I don't care where the money comes from so long as I get it, partner. Desperate circumstances require desperate measures you know, and the day before yesterday, I drifted in on the president and casually struck him for a loan of one hundred thousand dollars."

"Bryce! What did he say?"

"Said he'd give me an answer this morning. He asked me, of course, what I wanted that much money for, and I told him I was going to run a night-shift, double my force of men in the woods, and buy some more logging-trucks. Well, this morning I called for my answer—and got it. The Sequoia Bank of Commerce will loan me up to a hundred thousand, but not in a lump sum. I can have enough to buy the logging-trucks now, and on the first of each month the bank will advance me the money to meet my pay-roll."

"Bryce, I am amazed."

"I AM not. Pennington is only playing safe—which is why the bank declined to give me the money in a lump sum. If we run a night-shift, Pennington knows that we can't dispose of our excess output under present market conditions. It's a safe bet our lumber is going to pile up on the mill dock; hence, when the smash comes and the Sequoia Bank of Commerce calls our loan and we cannot meet it, the lumber on hand will prove security for the loan, will it not? In fact, it will be worth two or three dollars per thousand more then than now, because it will be air-dried. And inasmuch as all the signs point to Pennington's gobbling us anyhow, it strikes me as a rather good business on his part to give us sufficient rope to insure a thorough job of hanging."

"But what idea have you got back of such a procedure, Bryce?"

"Merely a forlorn hope, Dad. Something might turn up. The market may take a sudden spurt and go up three or four dollars."

"Yes—and it may take a sudden spurt and drop three or four dollars," his father reminded him.

Bryce laughed. "That would be Pennington's funeral, Dad. It costs us nothing to make the experiment."

John Cardigan sighed. But he advanced no objection, and the following day the agreement was entered into with the bank. Bryce closed by wire for the extra logging-equipment and immediately set about rounding up a crew for the woods and for the night-shift in the mill.

CHAPTER XIX

FOR a month Bryce was as busy as the proverbial one-armed paper-hanger with the itch, and during all that time he did not see Shirley Sumner or hear of her, directly or indirectly, Only at frequent intervals did he think of her, for he was striving to forget, and the memory of his brief glimpse of paradise was always provocative of pain.

Moira McTavish, in the meantime, had entered upon her duties in the mill office. The change from her dull, drab life, the opportunity for companionship with people of greater mentality and refinement than she had been used to, quickly brought about a swift transition in the girl's nature. With the passing of the coarse shoes and calico dresses and the substitution of the kind of clothing all women of Moira's instinctive refinement and natural beauty long for, the girl became cheerful and animated. Old Sinclair discovered that Moira's efforts lightened his own labors in exact proportion to the knowledge of the business which she assimilated from day to day.

Moira worked in the general office, and except when Bryce desired to look at the books or Moira brought some document into the private office, there were days during which his pleasant "Good morning, Moira," constituted the extent of their conversation. To John Cardigan, however, Moira was a ministering angel. Gradually she relieved Bryce of the care of the old man. She made a cushion for his easychair in the office; she read the papers to him, and the correspondence, and discussed with him the receipt and delivery of orders, the movements of the lumber-fleet, the comedies and tragedies of his people, which had become to him matters of the utmost importance. Whenever Bryce was absent in the woods or in San Francisco, it fell to her lot to lead the old man to and from the house on the hill. To his starved heart her sweet womanly attentions were tremendously welcome, and gradually he formed the habit of speaking of her, half tenderly, half jokingly, as "my girl."

BRYCE had been absent in San Francisco for ten days. He had planned to stay three weeks, but finding his business consummated in less time, he returned to Sequoia unexpectedly. Moira was standing at the tall bookkeeping desk, her beautiful dark head bent over the ledger, when he entered the office and set his suitcase in the corner.

"Is that you, Mr. Bryce?" she queried.

"The identical individual, Moira. How did you guess it?"

She looked up at him then, and her wonderful dark eyes lighted with a flame Bryce had not seen in them heretofore. "I knew you were coming," she replied simply.

"But how could you know? I didn't telegraph because I wanted to surprise my father, and the instant the boat touched the dock, I went overside and came directly here."

"That is quite right, Mr. Bryce. Nobody told me you were coming, but I just knew, when I heard the *Noyo* whistling as she made the dock, that you were aboard, and I didn't look up when you entered because I wanted to verify my—my suspicion."

"You had a hunch, Moira. Do you get those telepathic messages very often?" He was crossing the office to shake her hand.

"I've never noticed particularly—that is, until I came to work here. But I always know when you are returning after a considerable absence." She gave him her hand. 'I'm so glad you're back."

"Why?" he demanded bluntly.

She flushed. "I—I really don't know, Mr. Bryce."

"Well, then," he persisted, "what do you think makes you glad?"

"I had been thinking how nice it would be to have you back, Mr. Bryce. When you enter the office, it's like a breeze rustling the tops of the Redwoods. And your father misses you so; he talks to me a great deal about you. Why, of course we miss you; anybody would."

As he held her hand, he glanced down at it and noted how greatly it had changed during the past few months. The skin was no longer rough and brown, and the fingers, formerly stiff and swollen from hard work, were growing more shapely. From her hand his glance roved over the girl, noting the improvements in her dress, and the way the thick, wavy black hair was piled on top of her shapely head.

"It hadn't occurred to me before, Moira," he said with a bright impersonal smile that robbed his remark of all suggestion of masculine flattery, "but it seems to me I'm unusually glad to see you, also. You've been fixing your hair different."

THE soft lambent glow leaped again into Moira's eyes. He had noticed her—particularly. "Do you like my hair done that way?" she inquired eagerly.

"I don't know whether I do or not. It's unusual—for you. You look mighty sweetly old-fashioned with it coiled in back. Is this new style the latest in Sequoia?"

"I think so, Mr. Bryce. I copied it from Colonel Pennington's niece, Miss Sumner."

"Oh," he replied briefly. "You've met her, have you? I didn't know she was in Sequoia still."

"She been away, but she came back last week. I went to the Valley of the Giants last Saturday afternoon——"

Bryce interrupted. "You didn't tell my father about the tree that was cut, did you?" he demanded sharply.

"No."

"Good girl! He mustn't know. Go on, Moira. I interrupted you."

"I met Miss Sumner up there. She was lost; she'd followed the old trail into the timber, and when the trees shut out the sun, she lost all sense of direction. She was terribly frightened and crying when I found her and brought her home."

"Well, I swan, Moira! What was she doing in our timber?"

"She told me that once, when she was a little girl, you had taken her for a ride on your pony up to your mother's grave. And it seems she had a great curiosity to see that spot again and started out without saying a word to any one. Poor dear! She was in a sad state when I found her."

"How fortunate you found her! I've met Miss Sumner three or four times. That was when she first came to Sequoia. She's a stunning girl, isn't she?"

"Perfectly, Mr. Bryce. She's the first lady I've ever met. She's different."

"No doubt! Her kind are not a product of homely little communities like Sequoia. And for that matter, neither is her wolf of an uncle. What did Miss Sumner have to say to you, Moira?"

"She told me all about herself—and she said a lot of nice things about you, Mr. Bryce, after I told her I worked for you. And she insisted that I should walk home with her. So I did—and the butler served us with tea and toast and marmalade. Then she showed me all her wonderful things—and gave me some of them. Oh, Mr. Bryce, she's so sweet. She had her maid dress my hair in half a dozen different styles until they could decide on the right one, and——"

"And that's it—eh, Moira?"

She nodded brightly.

"I can see that you and Miss Sumner evidently hit it off just right with each other. Are you going to call on her again?"

"Oh, yes! She begged me to. She says she's lonesome."

"WELL, her choice of a pal is a tribute to the brains I suspected her of possessing. I've no doubt you find life a little lonely sometimes, too."

"Sometimes, Mr. Bryce."

"How's my father?"

"Splendid. I've taken good care of him for you."

"Moira, you're a sweetheart of a girl. I don't know how we ever managed to wiggle along without you." Fraternally—almost paternally—he gave her radiant cheek three light little pats as he strode past her to the private office. On his desk lay a pile of letters and orders, and a moment later he was deep in them, oblivious to the fact that ever and anon the girl turned upon him her brooding, Madonnalike glance.

That night Bryce and his father, repaired to the library, where the bustling Mrs. Tully served their coffee. This good soul, after the democratic fashion in vogue in many Western communities, had for a quarter of a century served father and son their meals and then seated herself at the table with them. This arrangement had but one drawback, although this did not present itself until after Bryce's return to Sequoia. For Mrs. Tully had a failing common to many of her sex: she possessed for other people's business an interest absolutely incapable of satisfaction—and she was, in addition, garrulous beyond belief. The library was the one spot in the house which John Cardigan had indicated to Mrs. Tully as sanctuary for him and his; hence, having served the coffee, the amiable creature withdrew, although not without a pang as she reflected upon the probable nature of their conversation.

No sooner had Mrs. Tully departed than Bryce rose and closed the door behind her. John Cardigan opened the conversation with a contented grunt:

"Plug the keyhole, son," he continued. "I believe you have something on your mind—and you know how Mrs. Tully resents the closing of that door. Estimable soul that she is, I have known her to eavesdrop."

BRYCE clipped a cigar and held a lighted match while his father "smoked up." Then he slipped into the easy-chair beside the old man.

"Well, John Cardigan," he began eagerly, "fate ripped a big hole in our dark cloud the other day and showed me some of the silver lining. I've been making bad medicine for Colonel Pennington."

"What's in the wind, boy?"

"We're going to parallel Pennington's logging-road."

"Inasmuch as that will cost close to three quarters of a million dollars, I'm of the opinion that we're not going to do anything of the sort."

"Perhaps. Nevertheless, if I can demonstrate to a certain party that it will not cost more than three quarters of a million, he'll loan me the money." The old man shook his head. "I don't believe it, Bryce. Who's the crazy man?"

"His name is Gregory. He's Scotch."

"Now I know he's crazy. When he hands you the money, you'll find its Confederate greenbacks."

(*Continued next week*)

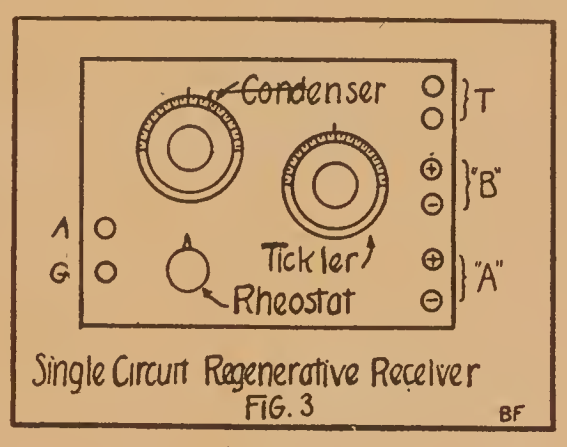
A More Sensitive Radio Set

How to make a Regenerative or Vacuum Tube Outfit

By BRAINARD FOOTE

WHEN one wishes to receive radio over distances upward of 20 miles, it becomes necessary to use a more sensitive form of detector than the crystal. A vacuum tube detector is then needed. In Figure 3 appears a single tube receiving set which for simplicity and results cannot be excelled. Moreover, should the builder of the set wish to add amplification later on or to try another "hook-up," the parts are all necessary and easily adapted.

What can be expected from such an outfit in the way of distance? So much depends upon the height of the aerial and the location that no definite statement can be made. It is safe to expect clear daylight reception of 30 or 40 miles, and distances at night of at least 200 miles. However, practically every one using such a set often hears stations over 1,000 miles away, and those in country locations report even better results. The farmer has far the best of radio in his location, for at least a score of miles from the nearest broadcaster, he can pick and choose at will among the dozens of programs sent out every evening.



The parts needed for the set are as follows:

.001 mfds. variable condenser; variometer; tube socket; rheostat; grid condenser with grid leak; phone condenser; 8 binding posts; hard rubber or bakelite panel, 6 x 12 inches; wooden base; vacuum tube; telephone headset, at least 2000 ohms; "A" battery; "B" battery; 100 feet No. 14 aerial wire; ground clamp; ½ lb. bell wire for connections; 2 antenna insulators; 1 porcelain lead-in bushing; 2—3 inch dials.

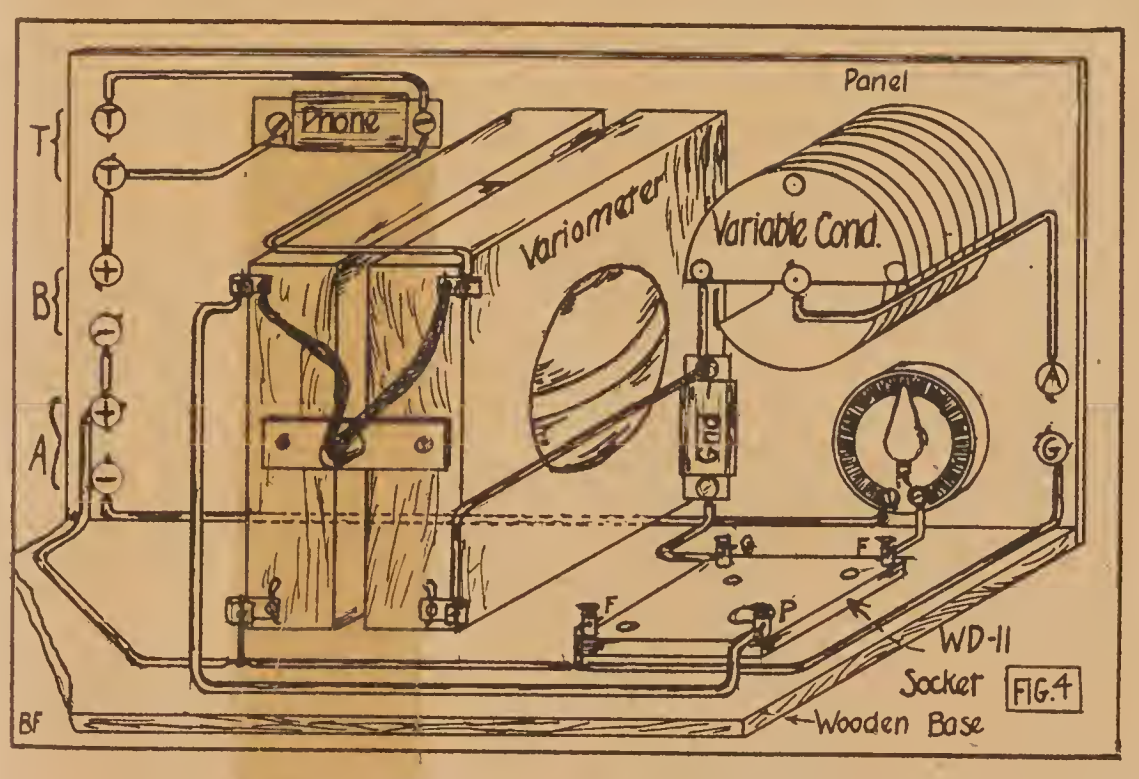
It is advisable to pay a fairly good price for everything purchased, to insure good results. There should be no chance of leakage due to poor sockets, poorly insulated condensers and the like. Hence it is well to insist upon products stamped with the manufacturer's name. Everything required may be ordered from a mail-order catalog, if a radio dealer is not available. American Agriculturist will advise you where parts may be procured.

If the standard vacuum tube is selected, such as the UV 200, the socket will have terminals arranged in a different manner from that illustrated, but the connections should be made to posts lettered as shown in the sketch. In that case, the "A" battery is a 6 volt storage battery, and the "B" battery is a 22½ volt block battery. There is on the market a tube called the WD-11, which is operated on 1½ volts, the type of socket shown is for this tube. Much less current is needed, and a common dry battery, such as the Red Seal, is the "A" battery. The "B" battery should then be 45 volts. Results will be as good as with the other tube, but there is this to be said: Should it be desired to add an amplifier later on, results will not be quite as good with the WD-11 tubes, as far as the amplifier is concerned, although they may be used with considerable success. Fig. 4 is a rear view, indicating the approximate placing of the parts on the panel. The variometer may not be wired exactly as shown, but it should be altered so there are two distinct parts: the two fixed coils connected together, and the rotary member. The flexible leads coming out from the hollow shaft are the connections to the rotor, while the other two are for the fixed coils, or stator. Bell wire is suitable for joining the parts and all joints should be tight. If possible, they should be soldered. The binding posts are all marked: "T" for telephones; "B" for the "B" battery, of which the red wire is positive and connects to the phones; "A" for "A" battery, with "positive" connected to the variometer and "ground"; "A" for aerial and "G" for ground. The appearance of the set from the front is given in Figure 3.

Operating the Set

The working of the set is simplicity itself. First the tube is inserted in the socket, and the rheostat turned on sufficiently to illuminate the tube and produce in the phones a bell-like ringing sound when the tube is tapped lightly with the finger. Care should be taken never to interchange the "A" and "B" batteries, for fear of burning out the vacuum tube. The rotor of the variometer, which in this set is the "tickler," should be set at right angles to the stator, as shown in Figure 4. The variable condenser is then turned slowly from a zero position with the plates all out, to the 100 degree point, where the plates are all meshed. Throughout the process of moving the condenser, the tickler should be moved along with it, keeping the two instruments in such a relative position that "oscillations" are just on the point of starting. This is indicated by a soft rushing sound as of water, and is the point of regeneration. Transmission from a broadcasting station is indicated by a whistling sound which "chirps" like a canary as the wave length is passed on the condenser. This should be brought in as loudly as possible, and the tickler turned back to

(*Continued on page* 106)



Layout for Regenerative or Vacuum Tube Outfit

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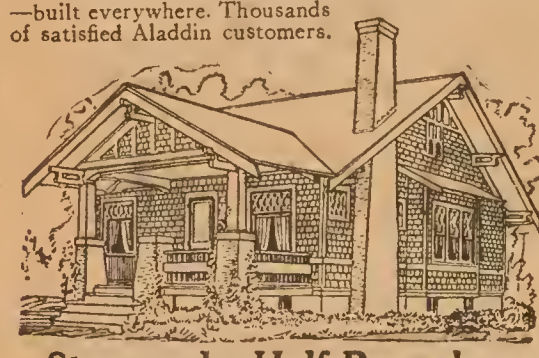

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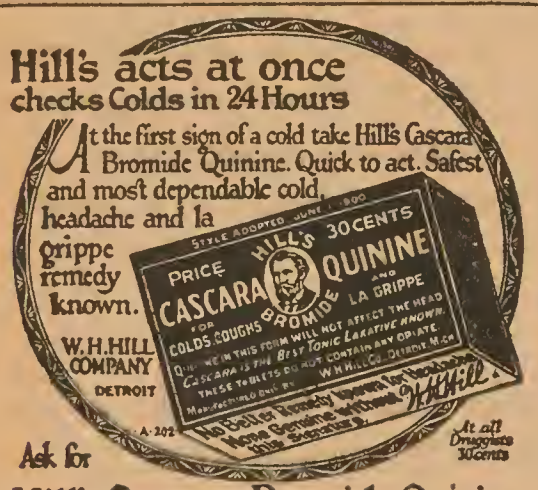

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For the Valentine Party

Games and Decorations That are Suitable

JUST why that rigorous old Roman, Valentinus, of whom nothing is known except that he suffered martyrdom on February 14, of the year 270, should have been chosen as the patron saint of lovers, is shrouded in mystery. Scholars say, however, that it is all because the ancient Roman festival of the Lupercalia, in honor of Pan and Spring, fell on February 15. The early Christian fathers, whose policy it was to adopt all the popular pagan holidays, therefore arbitrarily assigned to Valentine this festival, when the girls of ancient Rome put their names in a box from which they were drawn by the young men.

Whatever the origin, the day is one replete with sentiment, symbolized by hearts and cupids and mating doves, and it is a favorite occasion for parties and entertainments.

Decorating the house for a Valentine party is almost as much fun as getting it ready for Christmas. Red is the conventional color, and any ordinary room may be made festive by the use of festoons of red crêpe paper, hearts of all sizes dangling from red ribbons, and cupids and red tissue paper roses. Now that there are on the market luncheon sets, napkins, place cards, invitations and festoons, all of crêpe paper and bearing special Valentine's Day designs, it is very easy to decorate a home or schoolroom. A luncheon set, consisting of a table cover, 61 by 84 inches, one dozen napkins and one dozen paper plates, all emblazoned with red hearts and other symbols, cost but eighty cents. One can also obtain red hearts of varying sizes, in packages of twenty-five for ten cents, as well as gummed seals with appropriate Valentine designs.

With plenty of red crêpe paper and red cardboard, however, one can dispense with these other aids. Large red hearts may be placed in a border around the table, for instance, and festoons of narrow strips of the red crêpe paper hung from the chandelier to the corners of the room. Red ribbons of different lengths, each ending in a small red heart, may hang from the chandelier. The table centerpiece may consist of a bunch of red paper roses surmounted by a Kewpie doll disguised as Cupid. From his quiver of arrows narrow red ribbon go out to each place where a very small red-sashed Kewpie is attached to a red-covered paper serving cup.

Invitations for a party on February 14 may be written on inexpensive valentine postcards. To assign partners after the guests arrive, a number of valentines should be cut in two, one part of them going into one box from which the girls are to choose, the other into one from which the men draw. Each guest must then "match" up the other half of his valentine.

Games appropriate to the Valentine's Day party are:

Lovers' Tournament

The girls, each holding a cracker, line up on one side of the room, the boys on the other. At a given signal the knights run to their ladies, each rereceives from her a cracker and returns to the starting point and eats the cracker as quickly as possible, then returns to his lady, kneels before her and whistles a tune which the girl must recognize and name. The first girl to identify her knight's tune gets the prize.

What Hearts Answer These?

To quiet down after the tournament, which is apt to prove rather uproarious, the following is suggested as a guessing game:

1. A simple and lovely flower? Heartsease.
2. A novel by the "Wizard of the North"? Heart of the Midlothian.
3. A heart poem from the pen of Wordsworth? Heart-Leap Well.
4. The heart of a famous canine movie actor? Strongheart.
5. One of the things in which Washington was first? Hearts of his countrymen.
6. The heart of an author who wrote Western tales? Bret Harte.
7. The Heart of one of the New England States? Hartford, Conn.
8. The heart of a great English king who seldom visited his kingdom? Richard Lionhearted.
9. A signer of the Declaration of Independence? John Hart.
10. A proverb about hearts for lovers? "Faint heart ne'er won fair lady."

Heart Quoits

Fasten a stick about the height of a walking stick to a wooden base, and make a dozen heart-shaped quoits of wire covered with red cloth or crêpe paper. A prize is given to the guest who tosses the most quoits over the stick from a given place in the room.

Heart Pass

Players form in two lines facing each other. Place a dish of candy hearts beside each leader and an empty dish at the end of each line. Everyone in line clasps the right wrist of the player on his left with his left hand. At a given signal the leaders picks up one heart at a time and passes it down the line. If a heart is dropped it must be picked up with all the hands still clasped. The side which first passes all its hearts from one dish to the other gets all the hearts, including those passed by the opposing side.

A simple menu for a Valentine's Day luncheon follows:

Creamed Chicken and Mushrooms, or
Peas in Heart-shaped Pastry Cases
Waldorf Salad Hot Rolls
Cocoa with Whipped Cream
Ice-cream Hearts Valentine Cakes
Sugar-coated Almonds

Brick ice cream sliced and cut out with a tin cookie cutter may be used. For the cakes, a plain white cake about an inch in thickness cut out in heart shapes after it is baked and iced with fancy pink and white icings, is suitable.

Parties for children, or where simpler refreshments are required, may be amply served with heart-shaped sandwiches of various kinds, such as chicken, tongue, cream cheese and nuts, with heart-shaped cookies and ice cream or hot chocolate.

Heart-shaped boxes or heart-shaped bags of red cloth, filled with candies, may be used for prizes or favors.

PRETTY SKATING SET

A knitted set, for skating or tobogganing, should be brightly colored and becoming as well as warm and snug. The set shown here was made in black

and crimson. It would be equally pretty in turquoise blue with black; in green and heather brown, or in white, with any color.

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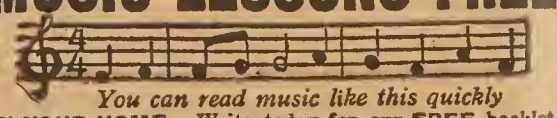

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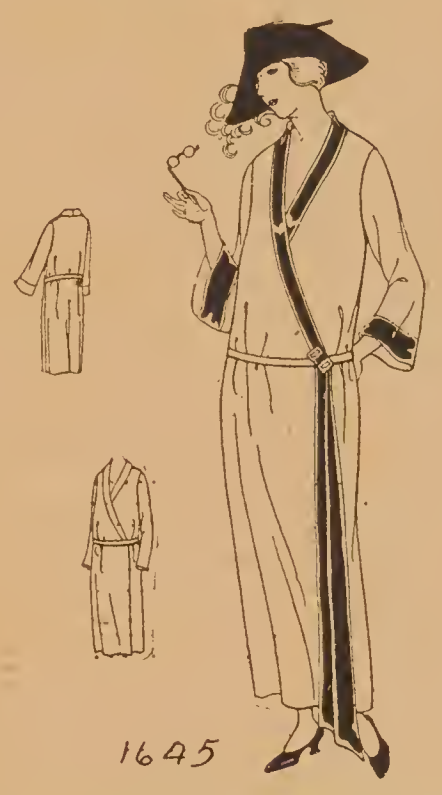
Styles for Sewing Days

The Newest Patterns—How About Arbuckle?

SPRING is in the air, even if winter still keeps us snow-bound. Thoughtful women are planning now for their spring wardrobes and those who sew at home can have more clothes than those who buy readymade, for the cost of materials is usually about half that of the finished garment.

A dress for mother is shown in 1645 and a ducky little coat for daughter in 1650.

The dress has a narrow collar, a side-front closing and slightly flared



sleeves which give it extremely graceful lines. It is a dress that is very becoming to the woman of ample proportions too, for the clever use of a strip of material as a drapery at the side front tends to carry the eye downward and gives an appearance of slimness.

No. 1645 cuts in sizes 34, 36, 38, 40, 42, 44 and 46 inches bust measure. In the 36-inch size this style requires 3½ yards 40-inch material with 1⅛ yards 32-inch contrasting. Price, 12 cents.

Shawl collars and surplice closings are considered quite the smartest thing in the new coats for junior girls. The

one-piece sleeves of this model are finished with turn-back cuffs. It would be pretty in a soft light woolen or in a shepherd's check. Big fancy buttons and clasps are very smart this year.

No. 1650 cuts in sizes 6, 8, 10, 12 and 14 years. And to make it in an 8-year size requires only 1¾ yards 54-inch material. Price, 12 cents, stamps or coin.

To Order: Write your name and address plainly, enclose 12 cents in stamps for each pattern ordered; send your order to Fashion Department.

Our Spring Book of Fashions, containing all the new models for the coming season, is ready. It contains pattern styles for the whole family and money can be saved by referring to it in selecting the spring wardrobe. In addition to over 300 styles, there are pages of embroidery designs, styles worn by movie stars, and dressmaking lessons to help the beginner. The price is ten cents a copy. Address your order to Fashion Department, American Agriculturist, 461 Fourth Avenue, New York City.

FOR DAYLIGHT REST

How long you lie down does not count for as much as how well you relax. Darkness aids relaxation; that's why the night was made for sleep.

Near midday, even lowering all the shades often does not make the room dark enough. However, try laying a blue or green scarf, or any piece of soft, dark material over the eyes. Its soothing touch is like gentle hands pressing home the message: Relax, rest.

You will find that this simple device often brings sleep to one who before could not sleep in daytime. If you are afraid of oversleeping and have no one to call you, set the alarm clock at the time you should arise, then drop off in peace. Mother's forty winks nap means poise, serenity, a longer life and a happier one for her and all around her.—MARY S. STOVER.

SHALL ARBUCKLE COME BACK?

WILL HAYS says yes; a great majority — we believe — of the American people says no. No, that is, to a return of the Arbuckle films to our theatres.

For "coming back" may be interpreted several ways. No one wishes to deny an honest penitent a chance to prove his regret and reform. It is said that Arbuckle, a leader in the orgy of drinking and vice during which a girl died, has been shocked to his senses, that he is a changed man.

That is good news. There are many ways in which the change, the reform, can be demonstrated. But the sure way to make it doubted is to release the Arbuckle films and to engage the comedian to make more.

To present him on the screen again is to reopen the Rappe murder case, to bring up its sensational features, the salacious undercurrent of rumor and testimony, the hints and innuendo of the street. Arbuckle on the screen, penitent though he may be, is the instant cause of offense, because he cannot rid himself of this association. And, in all too many cases, his "whitewashing" will only serve as an excuse to revive and use as dubious advertising the very nastiness we are anxious to forget. Neither he nor any man in the moving-picture business can be ignorant of this eagerness among many exhibitors to make capital of that San Francisco hotel orgy.

Arbuckle should have a chance to come back—but not to the screen. There are plenty of good hard jobs, inconspicuous ones, but none the less welcome to the genuine penitent. The world's work must be done, and any who are honestly willing to play a man's part in it can find plenty of opportunities to make their work count. One would hardly welcome an absconding bank president seven months out of jail, back to the presidency because he admits that he is sorry he got caught; but the man who is honestly sorry he committed a misdeed or crime does not want to start again at his old height. He proves his change of heart as much by his actions as his protestations and "comes back" via the long and perhaps hard road of beginning all over again. Until Arbuckle reads the signboard on that road and buckles down to following it, all talk of "denying him a chance to make good" is wasted breath.

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Reviewing the Latest Eastern Markets

POTATOES SELLING MORE FREELY

POTATOES sold more freely last week at slightly higher prices. State round whites, No. 1, sold in yards, bulk, per 180 lbs., mostly at $2.50. Farmers have not been hauling, due to bad weather. General price, 50c a bushel. "Long Islands" South Side have touched 95c a bu.; some very fancy, $1. The general price is 80c. The Maine shippers have been troubled with car shortage.

Cabbage supplies continue light, Danish variety, white, selling at $30 per ton, with probability of higher prices until Florida new cabbage becomes more plentiful.

APPLES SHOW LITTLE CHANGE

Apple receipts were not heavy last week at New York, but prices showed little change. Demand very light for small-sized fruit and of poor to ordinary quality. Quotations, January 25, follow, per bbl., A grade:

VARIETY	Best	Fancy	Ordinary
Greenings	$4.25@4.50	$4.75	$3.75@4
Baldwin	4.25@4.50	4.75@5	4
King	4 @4.25	4.50@4.75	3.50@3.75
McIntosh	7.50@8	8.25@8.50	6.50@7

EGG MARKET SLIGHTLY BETTER

Egg prices recovered slightly and held fairly steady last week. Supplies of nearby eggs were cleaned up better than for some time past. The market for all fancy quality nearby eggs of uniformly good size and chalk-white color, is steady at time of writing. Mixed sizes, cream color, and undergrades have to be sold at relatively low prices.

What the market will do in the immediate future is very uncertain. The number of cases of eggs moved in the four largest national markets so far this January has been somewhat less than last year, but considerably more than in 1921. The receipts at New York, however, have been greater. Buyers tend to turn from storage to fresh eggs now and cold storage stocks are not moving as rapidly as they were two weeks ago. The consumption of eggs or at least the wholesale trade output, dropped off in the week ending January 20, and was lower than during the same time last year. Easter and the Jewish Passover come at the 1st of April this year, which will cause an extra demand for March receipts.

POULTRY SHIPMENTS HEAVY

Dressed poultry supplies are in excess of the demand. Quality of New York State shipments generally poor. Express shipments of live poultry from nearby have been very light, but met a slow market, fairly well supplied with freight shipments. Pigeons have been scarce, and, owing to good demand, prices have climbed up rapidly.

BUTTER PRICES LOWER

Liberal receipts of fresh butter, especially importations, and a limited demand for consumption, keep the market weak. Prices are lower than a week previous by 2½c per lb. on creamery. Creamery, salted, high score, dropped to 50 to 50½c lb. on January 25. Danish, Argentine and New Zealand butter are offered in considerable quantities. Shipments are increasing from New York State localities that have until recently been shipping only milk.

HAY MARKET OVERSUPPLIED

The New York market is overstocked with hay. In the middle of last week there were estimated to be about 1,200 carloads on hand sold and unsold. Mixed hay was not in demand. Shippers should remember that demand here is only for horse feeding hay.

Rye straw is in demand and market steady at $24 @ $25 for No. 1.

The Erie R. R. has announced that after January 26 it will allow no free lighterage on hay shipments to New York. This means that shipments cannot be reloaded and taken to another terminal point after they have once been delivered and sold, without payment of extra fees.

LAMBS BRING GOOD PRICES

Prime State lambs were in light supply last week and brought good prices. On January 25 live State lambs at 60th Street Live Stock Market, Manhattan, brought $15 to $16 cwt. For several days previous they were quoted at around $16. These prices are higher than at this time last year, and will likely draw many shipments. BEFORE SHIPPING IT WOULD BE ADVISABLE TO GET ADVICE BY WIRE FROM THE CONSIGNEE AS TO MARKET SITUATION.

Strictly prime live veal calves brought $16.50 per cwt., January 25; other grades ranged from $16 downward. The market is active and steady. Country dressed calves were in heavy supply and demand slow, with market weaker. Country dressed pigs were not so plentiful but demand was slow.

FEEDS GENERALLY HIGHER

Although oil meal dropped $2.50 on the ton last week, the majority of other feeds showed slight advances. Gluten feed, standard spring bran, hard winter bran, standard spring middlings, choice flour middlings and yellow corn were all higher on January 24 than a week previous. Cottonseed meal continued at the same price, in spite of announcement from Washington that last ginning reports show a smaller cotton crop than originally estimated. Prices on mixed dairy feeds with high protein content were generally advanced in the last ten days. Quotations at Buffalo, carlots f. o. b. in 100 lb. sacks January 24 were:

Gluten feed, $46.55 @ 47; Cottonseed meal, 36 per cent, $48 @ 48.50; Cottonseed meal, 43 per cent, $54.25 @ 54.75; oil meal, 33 per cent to 34 per cent, local billed, $52 @ 52.50; dried brewers' grains (nominal), $49 @50; standard spring bran, $33 @ 33.25; hard winter bran, $33.75 @ 34; standard spring middlings, $33.75 @ 34; choice flour middlings, $33.75 @ 36.25; white hominy, $35.80 @ 36.30.

CASH GRAINS DECLINE

At New York and Chicago, cash grain quotations practically all declined last week, as a result of depression in the future market due to lack of export demand. Prices on January 26 follow: At New York:

No. 2 red wheat, $1.30½ bushel; No. 2 hard winter, $1.29½; No. 2 yellow corn, 89¼c; No. 2 mixed corn, 88¾c; No. 2 white oats, 55½c; No. 3 white oats, 54c; rye for export, $1.25; barley malting, 77 @ 79c; buckwheat, $1.93 @ 2.20. At Chicago—No. 2 yellow corn, 71½ @ 72c; No. 2 white oats, 44 @ 45c; barley, 60 @ 65c; rye, 87c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on January 26:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
Hennery, whites, extras	52 @53	.....	.....
Extra firsts	50 @51	45@47	42
Firsts	47 @49	.....	40
Gathered, whites, first to extra firsts	38½@41	44@45	.....
Lower grades	.....	.....	.....
Hennery browns, extras	47 @48	.....	.....
Gathered browns and mixed colors, extra fancy	40 @46	.....	.....
Extra first	.....	.....	.....
Pullets No. 1	40 @41	41@43	.....
Butter (cents per pound)			
Creamery (salted) high score	50@50½	55@56	.....
Extra (92 score)	49@49½	53@54	51
State dairy (salted), fine to fancy	45@48	51@52	.....
Good to prime	37@44	43@50	.....
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$21@22	$19@20	$22@23
Timothy No. 3	19@20	.....	19@20
U. S. Samplo	14@16	.....	.....
Fancy light clover mixed	21@23	.....	23
Oat straw No. 1	16@17	.....	12.50@13
Rye straw No. 1	24@25	.....	.....
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	27	26@27	26@28
Fowls, leghorns, fancy, heavy	20@22	18@22	20@24
Chickens, colored, fancy, heavy	21@22	24@25	27@29
Roosters	14	17@18	17@18
Live Stock (cents per pound)			
Calves, good to medium	13 @14	11½@15½	.....
Bulls, common to good	2½@ 4	4½@ 6	.....
Lambs, common to good	15 @16	13 @15¼	.....
Sheep, common to good ewes	3½@ 5½	6 @ 7½	.....
Hogs, Yorkers	9½@ 9¾	9¾	.....

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Barred Rocks, R. I. Reds	18.00	85.00	160.00

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(*Continued from page* 103)

stop the whistle. Voice and music will then be heard clearly.

The hands will have considerable effect on the tuning of a weak station, so that it is sometimes necessary to "tune too much," as amateurs term it, and then remove the hands from the dials, when the adjustment will settle into the proper position. This can be done with a little practice. The American Agriculturist would be pleased to hear from readers who construct this set, as it is expected that some unusually good distance records will be "hung up" by those in [illegible]ions.

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Barron English Large Type S. C. White Leghorns. Large, pure-bred, Hogan-tested, red-combed, pepful birds on free range, healthy and vigorous. All pens headed by Lady Storrs' Pen Cockerels (Dams records 240 to 271 eggs each). Chicks from these matings $20 per 100, $95 per 500, $180 per 1000. Special delivery parcel post prepaid, 100% live delivery guaranteed. 10 per cent books order for any week after Feb. 12.
LEONARD STRICKLER, Box 4, SHERIDAN, PA.

BABY CHICKS—Our 19th Season

Hatched from standard, pure bred, free range stock by long experienced operators. Twelve leading varieties, $10 per 100, up. Shipped Postpaid. Safe delivery guaranteed. Illustrated catalog free.

20th CENTURY HATCHERY
Box R New Washington, Ohio

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.
MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

HIGHEST QUALITY BABY CHICKS

Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
S. C. White, Brown, Buff Leghorns	$15	$72	$140
Barred Rocks, R. I. Reds, Anconas	$18	$85	$160
White Rocks, Blk. Minorcas	$20	$95	$180

All chicks sent by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. 10% books order any week after Feb. 1.
SHERIDAN POULTRY FARMS SHERIDAN, PA.

HARDY MICHIGAN CHICKS

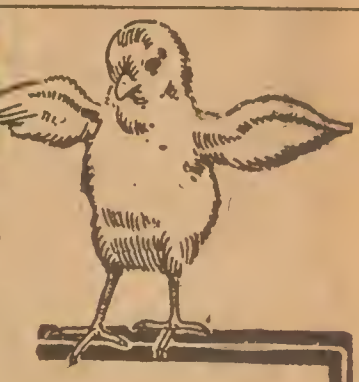
GUARANTEED MICHIGAN BRED AND HATCHED. WHITE & BROWN LEGHORNS, ANCONAS, 50, $7; 100, $13; 500, $60. BARRED ROCKS, R. & S. C. REDS, 50, $8.50; 100, $16; 500, $75. 1,000 Orders at 500 rate. RHODE ISLAND WHITES, 100, $18; 200, $35. Postpaid, full live delivery guaranteed. Strong, vigorous chicks, from select, heavy laying flocks. Order NOW right from this ad. I want your business. Catalog Free. Reference, Holland City State Bank. KNOLL'S HATCHERY, Box F, Holland, Michigan. Only 20 hours to New York City.

CHICKS from heavy laying flocks that are true to name in Orpingtons, Wyandottes, Rocks, Leghorns, Anconas, Minorcas, and Reds. A REAL HATCHERY—not jobbers. We sell only our own hatched Chicks. Send your name for descriptive printed matter and right prices. Postpaid. 100% live delivery guaranteed. Bank reference.
STANDARD POULTRY COMPANY
Route 19 Nappanee, Ind.

PORAY'S CHICKS Can furnish Pure Bred S. C. White Leghorns from Heavy Egg Layers, headed by Certified cockerels. Pedigreed chicks from Certified stock, also eight-week old pullets and up.
P. H. PORAY, R. 2. WILLIAMSON, N. Y.

BABY CHICKS

HILLPOT QUALITY CHICKS



Pullets famed for EGGS!

are the heart's desire of every wise poultry keeper. No better or more economical way to get profit pullets than to buy your chicks bred direct from **Hillpot Record Layers.**

LEGHORNS REDS ROCKS WYANDOTTES

No matter the breed you favor, you can depend upon getting chicks of heavy-laying strains. That's one of the things Hillpot Quality means.

Free 1923 Catalogue

Write for it today. Splendidly illustrated with hatchery views and leading breeds in full color. Shows how we ship our chicks anywhere within 1,200 miles and guarantee safe delivery of full count.

W. F. HILLPOT Box 29 FRENCHTOWN, N. J.
Member International Baby Chick Association
Life Member American Poultry Association

BUY HUBER'S RELIABLE CHICKS
Our 14th Year 1,000,000 For 1923

By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.

HUBER'S RELIABLE HATCHERY North High St., FOSTORIA, OHIO

GUARANTEED BABY CHICKS

From Hogan tested, free range breeders, mated with large, vigorous males. Our plant is a modern 65 acre poultry farm, with 10 years' careful breeding for heavy egg production. Wonderful winter layers. Winners at leading shows. Flocks are **M. A. C. Inspected.** Big, strong, vigorous, well-hatched Chicks at following prices: **White and Brown Leghorns, Extra Select, $14.60 per 100; Anconas, Extra Select, $15.30 per 100. Select Leghorns, $12.50 per 100; Anconas, $13 per 100.** Postpaid to your door, full live delivery guaranteed. Special discount on orders booked now. Order direct from this ad, get them when you want them. Also breeding stock and special mating Chicks. Get our catalog at once. Ref. 2 banks.
TOWNLINE POULTRY FARM Box 28 ZEELAND, MICHIGAN

CHICKS—$13 to $16 per 100 and UP POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

Varieties Prices on . . .	50	100	300	500
Buff & White Wyandottes & Buff Rocks	$9	$16	$47	$78
Barred Rocks, R. & S. C. Reds, Anconas	$8	$15	$43	$72
White, Brown & Buff Leghorns	$7	$13	$38	$63

Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW. DIRECT FROM THIS AD, and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free.
KIRKERSVILLE HATCHERY Box D KIRKERSVILLE, OHIO

$11 Per Hundred and Up
CHICKS From Selected, Pure Bred, Hogan tested flocks on free range. First Hatch off February 19th. 175,000 Chicks for season of 1923. 100% Live Delivery Guaranteed. Postpaid.

VARIETIES Prices on	50	100	300	500
White & Silver Wyan., White Orpingtons & Black Minorcas	$9.50	$18	$52	$85
White & Buff Rocks	8.50	16	46	75
Barred Rocks, R. & S. C. Reds, Anconas, & Black Leghorns	8.00	15	44	72
White and Brown Leghorns	7.00	13	38	62
Mixed, all varieties, odd lots		11	33	55

1000 orders at same rate as 500. Get our 1923 Catalog. Reference, Athens National Bank.
ATHENS CHICK HATCHERY, BOX Y, ATHENS, OHIO

Egg Bred White Leghorn CHICKS

Double your poultry profits with our Famous Improved Winter Egg Basket Strain of S. C. White Leghorns. They are the selected, long, deep-bodied typical hens with large lopped combs, mated to the famous Hollywood and Beall 250-300 EGG Pedigreed sires. All our breeders are culled, selected, and mated by poultry specialists and inspected and approved as to their laying ability and health.

Our Leghorns are winners at LEADING Egg Laying Contests and Poultry Shows. Thousands of customers all over the U.S. are reaping a golden harvest of eggs the year round from our egg bred layers. You, too, can make big money with them.

FREE Valuable Catalog tells all about EGG FARMING FOR PROFIT and What and How to feed for results. Worth many dollars to you. Get our prices on chicks and eggs before you buy. **Write AT ONCE.**
Q. DEVRIES, Grandview Poultry Farm. Box K, Zeeland, Mich.

CHICKS Husky livable chaps. Egg machines from high laying, pure farm bred stock. Specialists in S. C. W. Leghorns, R. I. Reds. B. P. Rocks. Sent postpaid. 100% live delivery guaranteed. Eggs and Breeding stock. Illustrated circular "ALL THAT IS NEW IN POULTRY" FREE.
GALEN FARMS, Box 200, Clyde, New York

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.
TRY US AND BE SATISFIED
RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

BABY CHICKS Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 18c. each; White Wyandottes, 22c. each; White, Brown, Buff Leghorns, 15c. each; broilers, 10c. each. Pekin Ducklings, 32c. each. Safe delivery guaranteed by prepaid parcel post
NUNDA POULTRY FARM, NUNDA, N. Y.

CHICKS of superior quality. From S. C. White Leghorns. Write for circular.
S. BRUNDAGE Salisbury Mills, N. Y.

CHICKS KERLIN QUALITY

ENGLISH-AMERICAN S. C. WHITE LEGHORNS
CHICKS from 265-270 Egg Strain stock and PEDIGREED STOCK FROM 280 TO OVER 300-EGG HENS. POSTPAID.
Free Feed with each order. One hundred per cent. Safe Arrival Guaranteed. A Special Discount of $3 per 100 Chix on orders placed promptly. Book of valuable information to poultry raisers FREE for the asking. We WANT you to have it. Drop us a card right now before you forget it and let us tell you more about this truly wonderful strain of layers.
Member International Baby Chick Association
KERLIN'S GRAND VIEW POULTRY FARM
BOX 35 CENTER HALL, PA.
A Breeding Institution of Merit since 1900

BABY CHICKS

Price List Prepaid to you	Purebred Stock 100	50	25
White and Brown Leghorns	$13.00	$7.00	$3.75
Buff and Black Leghorns	13.00	7.00	3.75
Anconas	14.00	7.50	4.00
Minorcas	15.00	8.00	4.25
Rhode Island Reds	15.00	8.00	4.25
Barred Rocks	15.00	8.00	4.25
Buff and White Rocks	16.00	8.50	4.50
White and Silver Laced Wyandottes	16.00	8.50	4.50
Buff Orpingtons	16.00	8.50	4.50
Langshans	18.00	9.50	5.00
Brahmas	20.00	10.50	5.50

All absolutely first class, pure bred stock. Prompt shipments made. Mail orders to
J. KREJCI, 296 Broadway, New York, N. Y.

REGISTERED AND CERTIFIED LEGHORN CHICKS
A few April Registered and General Mating Chicks left. Reduced prices for May and June deliveries. Get descriptive catalog of prices, etc.
E. J. WADE, 1558 Lake St., Elmira, N. Y., Dept. C
Member of N. Y. S. C. P. C. A.

CHICKS PEDIGREED, EXHIBITION & SELECT GRADES, from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.

NABOB HATCHERIES, Box A5 Gambier, Ohio

Big Bargains for 1923

HARRIS BROTHERS CO.

Announce A Wonderful Buying Opportunity

Big Savings from Our New Stocks at Chicago & Our Army Camp Sales!

Bigger opportunities and better values than ever before will be found in our gigantic stocks. This colossal sale greatly outdistances all of our sensational sales of the past.

No matter where you reside the combined price smashing power of the wonderful bargains at our numerous great U. S. Government Army camp operations and at our headquarters plant here at Chicago offer irresistible values. Mail the coupon now.

Galvanized Roofing

Prices Cut in Half!!

FREIGHT PREPAID

This sale brings you world's greatest roofing values in all dependable grades. Buy quickly and liberally. These prices are freight prepaid to Illinois, Indiana, Ohio, Iowa, Michigan and Wisconsin. Ask for Freight prepaid prices to other states.

Look at This Low Price!

Lot **PH1**—Reconditioned, corrugated, galvanized roofing and siding. Per 100 square feet.....**$3.00**

Painted Corrugated Sheets

Lot **PH2**—Overhauled, painted, corrugated sheets. Per 100 square feet.....**$2.25**

Slate Coated Roofing!

Lot **PH3**—Red or gray-green, slate coated roofing. Rolls contain 108 square feet. Nails and cement included. Per roll new stock.....**$2.00**

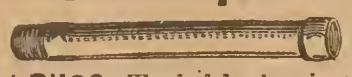
Gold Medal Wallboard!

Lot **PH4**—Splendid wallboard furnished in 32" and 48" widths; lengths up to 12 ft. Per 100 square feet, freight paid to states above new stock.....**$3.95**

New Government Sheets

Lot **PH5**—Heavy weight 22 gauge 2½" corrugated metal sheets. Size 27½x81". Per 100 square feet. Prepaid as above new stock.....**$3.95**

Iron Pipe Bargains!



5c PER FOOT

Lot **PH20**—Wonderful values in our big stocks. Random lengths complete with couplings, all sizes at big savings, 1 in. pipe, per foot.....**5c**
All other sizes priced proportionately low.

Lumber $15 to $25 Per Thousand!

Millions of feet of splendid lumber is now on sale at our various U. S. Government Army Camp operations. Good sound lumber, thoroughly seasoned, with nails pulled out—not clipped off. All kinds—send your list for low quick sale prices or mark coupon for our catalog of army camp material located nearest to you. Combine your requirements with your neighbors in order to secure the benefit of lowest car load freight rates.

Timbers	Sheathing	Doors	Novelty Siding	Plumbing
Joists	Drop Siding	Shiplap	Ceiling	Heating
Studding	Flooring	Windows	Planking	Pipe and Fittings

At our various government army camps we have for sale various kinds of sash, windows and frames suitable for practically every building purpose.

Sash priced from.....75c to **$1.50**

Windows priced from..**$1.50** to **$3.50**

Thousands of doors in regular sizes are offered for sale at the various camps at big savings. Sizes range from 2 ft. x 6 ft. to 3 ft. x 7 ft., most of them being medium size 2 ft. 8 in. x 6 ft. 8 in.

Priced from.....**$1.25** to **$3.75**

Mail The Coupon Today for—

The complete list of materials now on sale at the Army Camp Nearest to you will be sent quickly and without charge or obligation to buy.

Our General Catalog of NEW Building materials, Guaranteed READY-CUT Harris Homes Plumbing, Heating and everything needed to build and improve.

Govt. Barbed Wire!

$1.15 Per Reel

Bought by us at less than cost of manufacturing. Made under rigid government inspection. 12 gauge open hearth steel wire with 4 point barbs 5-8 inches long spaced 3 inches apart. 58 pound reels contain 700 feet; 112 lb. reels, 1,400 ft. Coated with special formula weather resisting paint.

Lot Number **PH200.**
Price, per reel.....**$1.15**
112 lb. reels.....**$2.25**

Shipped from Chicago or Cresskill, N. J.

Smooth Fence Wire!

Smooth galvanized 9 gauge wire suitable for fences, stay wires, grape vines and all general purposes about the home and farm. Rolls weigh about 150 pounds.

Lot No. **PH100.**
Price, per 100 lbs.....**$2.95**

Shipped from Chicago or Cresskill, N. J.

Barbed Bottom Hog Fence!

Lot **PH6**—Made of No. 11 top wire and No. 14 intermediate wire and stay wires. Spaced 6 inches apart, 3, 3½, 4, 4½, 5½ and 6 inches, spaced from bottom upwards.

26 in. high, per rod..**24c** 32 in. high, per rod..**30c**

Splendid Hog Troughs!

Lot **PH7**—Strong non-tip feed troughs for hogs, sheep and cattle. Heavy steel, 12 inches wide.

5 feet long, each.....**$1.95**
8 feet long, each.....**$2.95**
10 feet long, each.....**$3.95**

FAMOUS WATTS CORN SHELLERS

$65 Now Buys This Sheller

You can now buy and own the world's best corn sheller at big reduced prices. Most liberal terms. 30 day free trial, and a guarantee of satisfaction.

No. PH8—Watts No. 1—$22.50. For the man who shells corn for his own use, capacity 50 to 75 bu. per hour, with 3 H. P. engine.

No. PH9—Watts No. 4—$49. With cleaning system, cob stacker and grain elevator.

No. PH10—Watts No. 7—$192. With standard equipment, including wagon box, grain elevator, cob stacker, type "R" feeder on steel trucks, capacity 200 bu. per hour.

Watts No. 4-A Corn Sheller. No. PH11. This is the famous Watts No. 4-A Corn Sheller, fitted complete with cleaning system, cob stacker, grain elevator and automatic feeder—capacity 75 to 125 bushels per hour with a 4 to 6 H. P. Engine. Price.....**$65.00**

3% cash discount allowed on Corn Shellers if cash in full is sent with order.

Cream Separators

Famous Cream Getter

EASY TERMS—FREE TRIAL

Lot **PH8**—Our famous cream separators, have made a wonderful record in all sizes—all seasons of the year in all parts of country, patented exclusive improvements everywhere. Fully Guaranteed to give complete and lasting satisfaction.

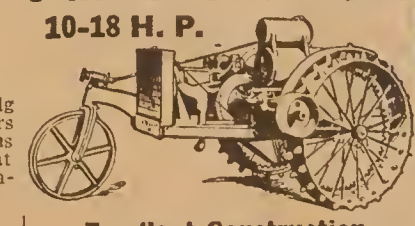
Size No.	Cap. lbs per hr.	Sale price	Size No.	Cap. lbs per hr.	Sale price
*1	*175	*$31.50	5	500	$54.00
*2	*250	* 35.00	7	750	62.00
3	375	49.00	9	950	68.00

*Indicates table sizes. All machines are ready for shipments from Minn., Pa. and Chicago. 3 per cent discount is allowed if cash is sent with order.

Allis-Chalmers Farm Tractors

Reduce Sale Price $295

10-18 H. P.



Lot **PH600**—This is your one big chance to own a famous Allis Chalmers Farm Tractor. This great offer means that you get a complete tractor at less than price of a reputable gas engine of equal power.

Easy Time Payment

Buy on your own terms. We will arrange to extend the payments for a reasonable period.

A Double Guarantee

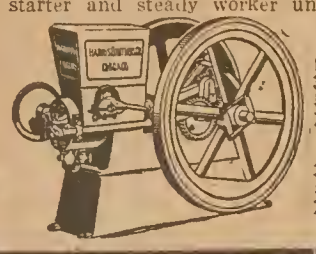
With each Allis Chalmers Farm Tractor, we give you our well known "money back guarantee", which assures you of satisfaction, and Allis Chalmers' guarantee, which protects you forever against defects in material and workmanship.

Excellent Construction

Allis Chalmers 10-18 H. P. Farm Tractors, are built to give best service under most severe conditions. A strong, durable machine for pulling plows, harrows, binders, wagons, etc. —will do all kinds of work, taking the place of 8 horses. Maximum power for its weight. Few parts easily accessible, best material—strength and efficiency combined.

GASOLINE ENGINES

Lot **PH9**—Monarch engine with Webster oscillating magneto. Develops full rated horse power. Sure starter and steady worker under all conditions.



GASOLINE	
1¾ HP.	$ 45
3 HP.	75
5 HP.	100
7 HP.	150

KEROSENE	
3 HP.	$ 87
5 HP.	113
7 HP.	170
12 HP.	290

Send This Coupon!

HARRIS BROS. CO., Chicago, Dept. PH-505

Check the squares below, to show which items and material you are interested in, and we will send you the proper literature free, and postpaid.

- ☐ Book of Building Material from Army Camps.
- ☐ General Catalogue of New Material.

I am interested in:.....

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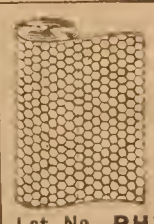
Name .....

Address .....

If you do not wish to tear this page, drop us a postal card explaining your wants.



POULTRY NETTING

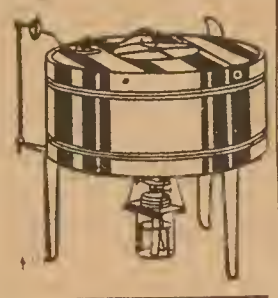
Made for government under rigid inspection of 19 gauge Bessemer steel wire heavily galvanized; 2 inch mesh in 2 heights. Bales contain 150 lineal ft.

36 inches high, per bail.....**$2.40**

Lot No. **PH300**—72 inches high, per bail.....**$4.75**

INCUBATOR BARGAIN

$5.25

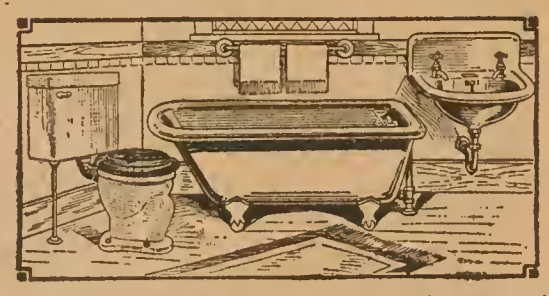


No. **PH168**—Only a few left. Practically all steel. Round like a nest. No cold corners. Big Hatch always. Capacity, 70 eggs.
Each....**$5.25**

Wire Nails $1.95 Per 100 Lbs.

No. **PH80**—New wire nails. All sizes from 3 to 40d. Handy assortment for general use. Indispensable for use about the farm. 100 lb. keg....**$1.95**

Bathroom Outfit $52.00



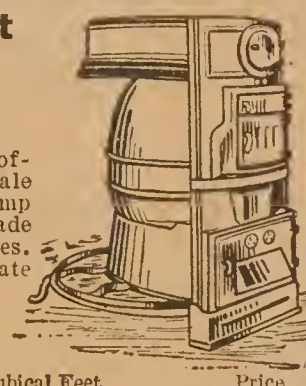
Lot **PH166**—Bathroom outfit complete from our Army Camp Stock. Everything guaranteed in perfect mechanical condition and a big value at this low sale price. Consists of enameled bathtub 5 ft. long, lavatory and closet outfit with white earthenware bowl, and plain design, white porcelain tank. Nickel plated faucets, bath cock and supply pipes. Outfit complete **$52.00**

One Piece Kitchen Sinks

Lot **PH10**—White porcelain enameled roll rim kitchen sinks furnished complete with 2 faucets and trap.
Size 18 in. x 24 in.....**$12**
Size 18 in. x 30 in.....**$13**
Size 20 in. x 30 in.....**$14**
White porcelain enameled drain board, 24 in. long, each.....**$5.50**

Furnaces At ⅓ Price

$18.00



Lot **PH11**—Now offered for quick sale from our army camp stock. Furnaces made by leading foundries. At a very moderate price any tinsmith or handy man can make them into a pipe or pipeless furnace.

Fire Pot Size	Cubical Feet	Price
18 inch	12,000	$18.00
24 inch	22,000	25.00
28 inch	45,000	30.00

GUARANTEED PAINT

Lot **PH12**—Best formula, won't peel, blister, fade or rub off. White, black and 26 non-fading colors. Put up in containers of 1 to 50 gallons. Per gallon.....**$1.85**

Barn or Garage Paint

Lot **PH13**—Guaranteed barn or garage paint. Red, yellow or maroon. Per gallon.....**$1.35**
Green-slate or red.
Per gallon **$1.60**

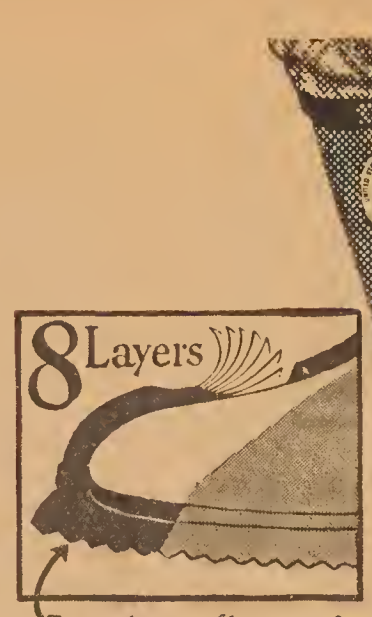
HARRIS BROTHERS CO. 35th & Iron Streets CHICAGO

VOL. 111 Founded 1842 No. 6

AMERICAN AGRICULTURIST

$1.00 A YEAR February 10, 1923 5 CENTS A WEEK

He Was Born, Sonny, 114 Years Ago



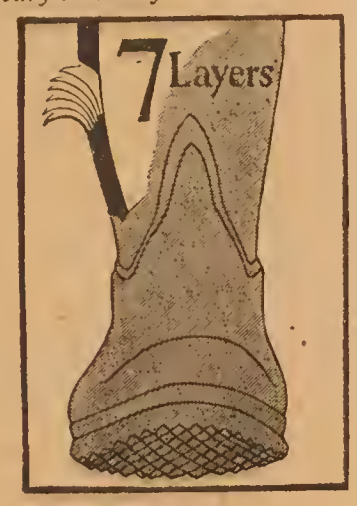
Extra heavy flange sole

THE SOLE—*A thick single-layer of the finest, toughest high-grade rubber. Its flange shape means extra protection and wear.*

THE INSTEP—*A series of graduated reinforcing layers in the instep combines unusual flexibility with surprising strength.*

BACK OF THE HEEL—*Eleven layers of heavy duck and highest grade rubber make this one of the strongest points of the whole boot.*

THE ANKLE—*Here the "U. S." Boot has an extra "collar" that runs all the way round the leg, and on top of that is vulcanized a heavy side-stay.*



In the 4 places where the strain is hardest *"U.S." reinforcements insure extra wear*

Unless a boot is skillfully made, it will break at one of four vital points and let the water through long before it should—

It will give away at the heel—or break at the instep—or sag at the ankle or wear through at the sole—

It's at one of these four places that the strain on a boot is hardest.

That's why the makers of "U. S." Boots have built a strong system of protection into these points of hardest wear.

From 7 to 11 extra layers of fabric and tough rubber reinforce every pair of U. S. Boots at the very places that are generally the "weak spots."

The diagrams above show you just *how* U.S. Boots are built. Their construction is the result of 75 years of experience in boot making. Light enough for solid comfort—yet strong enough for the hardest tests you can give them—it *takes* years of experience to make a boot like that.

Other "U. S." Footwear—all built to give the utmost service

You'll find every type of rubber footwear in the big U. S. line. There's the U. S. Walrus, the famous all-rubber overshoe—the U. S. lace Bootee, a rubber workshoe for spring and fall—U. S. Arctics and Rubbers—all styles and sizes for the whole family. Look for the "U. S." trademark whenever you buy—the honor mark of the largest and oldest rubber organization in the world.

United States Rubber Company

Trade Mark

Ask for "U.S." Boots

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending February 10, 1923** **Number 6**

Looking Ahead With the Poultryman

The Egg Market and the Bearing It Has on Future Plans

THE American Hen, Incorporated, whose 6,500,000 plants, scattered all over Uncle Sam's big farmstead, employ an average of possibly 50 workers each, is prepared for a record output in 1923. The urban hen and her suburban and small-town cousins whose numbers have never been counted will make a notable mate for the remaining period based on past records, the total supply for the year applies to similar plans on the part of the automobile makers, the building trades and other of our national enterprises.

Observe the activity around the incubator factories, listen to the stories of their sales, count the mammoth hatcheries going into place, find out what poultry feed manufacturers have been doing, and all will point in the same direction. The poultry industry is still in the expansion stage.

Receipts at the four leading markets, Chicago, New York, Boston and Philadelphia do not furnish an absolute index of production, but they are the best barometer we have. The egg year begins March 1. The 1922-23 year still has several weeks to go, but after making a conservative estimate for the remaining period based on past records, the total supply for the year promises to be in the neighborhood of 15,275,000 cases. How this compares with receipts in preceding years is shown in the table below. The accompanying chart presents the same figures in graphical form:

Egg Year	*Receipts*
1922-1923	15,275,000 cases
1921-1922	14,267,205 "
1920-1921	12,802,454 "
1919-1920	13,896,812 "
1918-1919	12,597,519 "

The increase in the last year over 1921-1922 is about seven per cent. Both years show good-sized increases over 1919-1920 which formerly held the record.

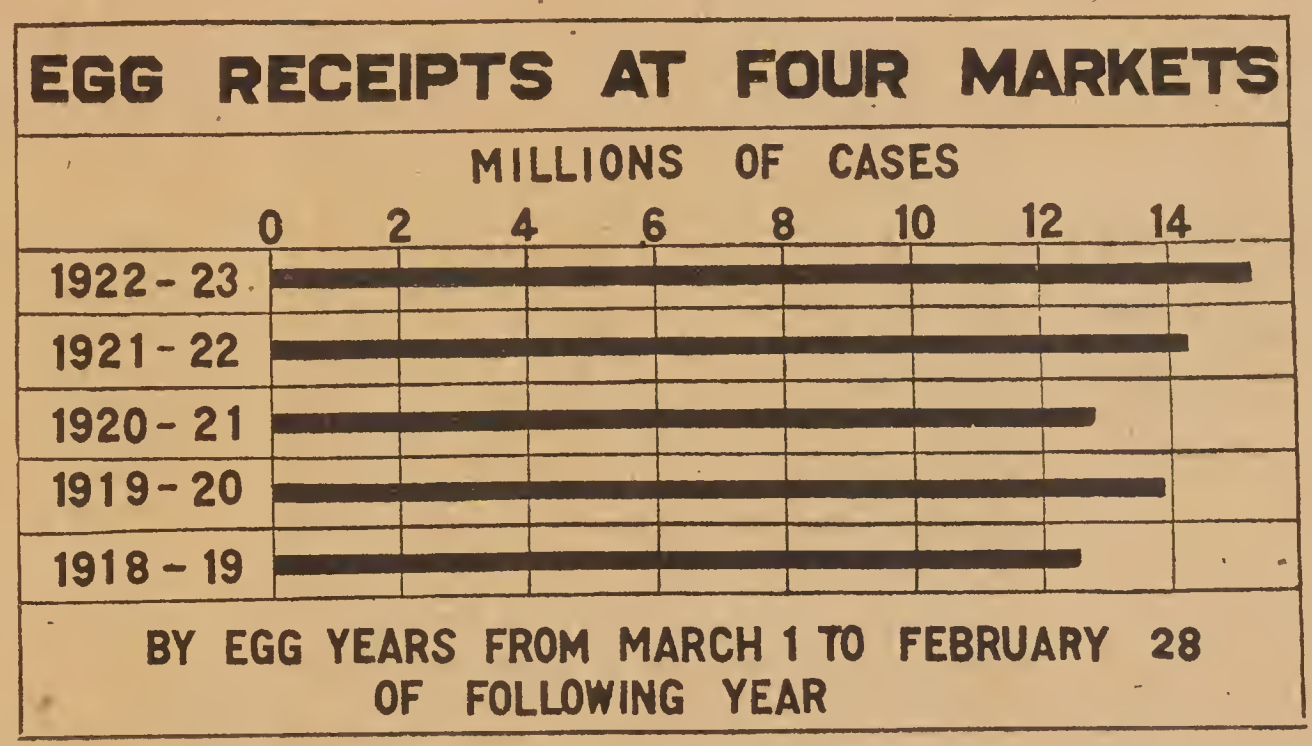
Meat Another Product

But the poultry industry produces meat also. Indeed, it is probable that the American public eats more chicken than it does lamb and mutton. Market receipts of poultry are still more fallible than in the case of eggs as a measure of production. But in view of the other evidence there is some significance in the fact that receipts of dressed poultry at the four leading markets in the last three calendar years were as follows:

1922	277,756,466 lbs.
1921	252,356,721 "
1920	214,112,354 "

The expansion in the industry this time means a little more than normal growth paralleling the gradual increase in the human population. Poultry has been a side issue on the average farm, but good prices compared with feed costs and a steady income when times were bitterly hard on the farm have made egg money useful in meeting taxes, interest on the mortgage and notes at the bank as well as in defraying the well-known grocery bill.

There are signs that the rate of expansion is declining. For example, receipts at the four markets in the last egg year were only 7 per cent more than in the preceding year, while that year in turn gained 11.5 per cent over two years ago. Receipts in each of the last six months have been smaller than in the corresponding month in the preceding year, although the presence of large cold storage stocks at those points built up early in 1922 may have retarded the flow of additional shipments. Furthermore, prices in 1922 were less attractive than in 1921 and did not exert such a stimulating effect.



Receipts at Chicago, New York, Philadelphia, and Boston are not an absolute index of production, but they are the best barometer we have

Comparing Prices

Farm prices for eggs on the first day of each of the last nine months of 1922 averaged only 26.7 cents compared with 29.8 cents on the same days in the preceding year. Farm prices for chickens averaged 19.2 cents a pound on those days against 20.6 cents a year previous. On the other hand, feed costs have averaged slightly higher than in the preceding year. Better prices for grains, cattle, hogs, sheep and dairy products are stimulating a return to these so-called major products, leaving poultry again as a side line. In spite of this check, however, the momentum which the industry has is so great that there is every reason to expect total production of eggs and poultry in 1923 to surpass all former records.

So much for the production side. Consumption has expanded as much as production and is setting new high records. It must, inevitably. The eggs produced in the spring and summer can be stored for use in the fall and winter, but before the next storing season starts, these reserves must be distributed no matter what the price. Much the same thing is true of poultry so far as market supply goes. In the course of the year there may be some disparity in the changes in rate of production and consumption, but not for the year as a whole. For example, more eggs accumulated in storage last summer than ever before by about 25 per cent. Yet prices were kept low enough during the fall and winter to practically "clean up the lay" by the first of February.

Demand Has Been on the Increase

Aside from these mechanics of the market there has been an undoubted increase in the keenness of the demand, in the willingness of the consumer to buy. The change in volume of employment, the high income of the working man and the fact that poultry and egg prices have receded much more from war time levels than wages have done, are at the bottom of the matter.

What are the chances that demand will become keener in 1923 and thus absorb larger receipts of poultry and eggs at prices as high as or higher than in 1922? What is the outlook for dividends? So far as can be seen they appear fairly good. The closest students of business trends believe that business activity and employment will remain high or even expand further through most of the year. Increases in wages in many industries are on the horizon. Commodity prices generally are expected to advance during the year. These expectations may not be fulfilled, but they are as well based as predictions of the future can be.

From 700,000 to 1,300,000 cases of eggs are exported annually. Fortunately, Great Britain is the chief buyer and conditions in that country are fairly stable so that if Central Europe does crack it will not greatly concern the egg market. Although imports of fresh eggs are light, from 8,000,000 to 18,000,000 pounds of dried and frozen eggs and egg albumen have been brought in annually in recent years. With the present tariff such competition, which never was severe, has been reduced. Exports and imports of poultry are negligible as a market factor.

With the situation as outlined in the foregoing, is it either over-optimism or over-conservatism to look for egg prices in 1923 on about the same level as in 1922? The fact that eggs for April delivery are being traded in at Chicago at 24 cents, or about the same as a year ago, is significant as to the sentiment of egg dealers and distributors. The usual seasonal changes are to be ex-

(*Continued on page* 115)

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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Help the Voigt Bill

FOR over two years farmers and those interested in public health have been working hard to secure the passage of the Voigt Bill. This bill prohibits the manufacture and sale of filled milk—that is, milk from which the butter fat has been removed and coconut oil substituted—in interstate and foreign commerce.

The Voigt Bill was passed by a large majority in the House of Representatives, and was recently reported favorably by the Senate Committee on Agriculture. It will surely pass if it can be brought up before Congress adjourns. But there is less than five weeks of this Congress, and unless it can be brought up before the Senate, the bill will fail and all the tremendous amount of effort made for it will be lost. Its passage means millions of dollars every year to the dairy industry and much that cannot be measured in dollars to the public health.

As soon as you read this editorial, will you not sit down and write or telegraph both of the Senators in your State, and to any others that you know of outside of your State, urging them as emphatically as you can to help bring the Voigt Bill before this Congress? This is a definite job that you can do in the marketing of your own products that will be of more value to you than several days work on the production part of your business.

Our Market Service

IN answer to our recent offer to assist farmers with their marketing problems, we have had a large number of interesting letters and have done our best to help these correspondents to better markets. Some of the letters, together with our answers, are of enough general interest so that we publish them in another part of this issue. If you have marketing problems, and most of you do, let us know about them and we may be able to give you some help. Of course we cannot do the impossible, but one of the things that most farmers need in market service is information, and we are in position to give this in accurate and unbiased form.

Unfortunately, the business of marketing farm products is a technical and difficult trade in itself, and a business in which information may be right to-day and wrong to-morrow because of constantly changing conditions. Therefore, the farmer who has not the time, or will not make the effort to put himself in touch with information regarding the markets, and to constantly study this changing information, will not get very far in doing his own marketing. Local dealers who make a business of buying farm products have made a lifelong study of the trade, and many of them do not make much money at it. But there is opportunity for better prices for the farmer who produces high-quality eggs, veal, hay, or other products, learns how to pack the product in the way that the market wants it, and then puts it on the market at the right time and under the right circumstances.

The Farm Doctors

UNCLE SAM FARMER was sick. His wife thought he was dangerously ill. He felt so himself, but he did not say so because he remembered, back in '73 and that other time in the early '90's, when he was sick and his wife had insisted on calling the doctors, with the result that they had nearly finished him.

But the secret of his illness was too important to keep, for most folks have come to know that when Uncle Sam Farmer stops working, the rest of the world will soon stop eating. So the doctors and the councilors came hurrying to Sam's bedside uninvited, and with ominous and important head-shakings, spent much time "*investigating*" and "*surveying*" poor Sam. Now, Sam was a quiet, retiring sort of fellow and much preferred minding his own business and having other folks mind theirs, particularly so when he remembered that he had been too tired last Saturday night to follow Mrs. Sam's emphatic advice about getting the old washtub out for a bath. Besides, as aforesaid, he mistrusted doctors and their fool remedies, anyway.

But after a while the doctors withdrew for a "*conference.*" Said Dr. Allopath: "I know what ails this farmer fellow. He needs a good dose of '*farm credit.*' Lots of credit will buck him up so that he will produce more food and we can buy it cheap again." "You are wrong, as usual, doctor," replied Dr. Homeopath. "Our patient is still suffering from an overdose of '*credit*'; in fact, it is one of the things that made him sick. What he really needs is an injection of '*immigration germs,*' which will enable him to get cheap labor from Europe. Then, with lots of labor, he will produce more food than we need and we can buy it cheap." "I am with you on buying our food cheap," said Dr. Autosuggestion, "but your remedies are ridiculous. All that has put that fellow on his back is poor management, and all that he needs is '*good advice.*'"

Finally, after much further discussing and conferring, the doctors, after much disagreement among themselves, appealed to Dr. Sawbones, the surgeon, who had up to then maintained a sad and dignified silence. "I cannot at present add any light to your discussion, gentlemen," said Dr. Sawbones. "I came over here expecting and hoping to remove Sam Farmer's '*spondulix,*' but after a careful '*investigation*' I find that some one has beaten me to it, and now my only hope is to wait until it grows again." Unable to agree, the doctors each left a separate set of remedies for the patient and departed after assuring Sam that they would return soon and bring more advisers. As soon as they had gone, Sam painfully arose from his bed, and, gathering the many bottles in his arms, threw them all out of the window.

Next day old neighbor "*common sense*" came in for a visit, and Sam told him about the doctors. "Ain't it funny," said the neighbor, "that them fellers don't know that the best kind of medicine for you is a little letting alone. All you need is a chance to cooperate with me and your other farmer neighbors to solve your own problems. Then you won't be so liable to get sick again like you are now with an overdose of high taxes, hard work, and no spondulix."

The League is Legal!

WILL the Dairymen's League Cooperative Association's contract with its members stand the test of the courts? A Supreme Court jury says "Yes." The League sued two farmers of Chenango County on January 26 for breaking their contract, and won a judgment of $228.16. Before rendering its verdict, the jury first made sure that the contract was just as binding on the League as it was on the member.

This victory of the Cooperative Association, together with the one against Fred C. Barnes, who sued the League for restraint of trade, have done much toward strengthening the Association and convincing farmers that it is operating along right lines and making a real effort to get fair prices for milk.

There will naturally be some cancellations of contracts during the coming cancellation period by men who are going out of business and by a few others. But there is every indication at this time from all parts of the League territory that the dairymen are going to stick by the only weapon they have to maintain their rights in the milk market.

For a General Meeting Week

THE idea of a winter show of all of New York State's products, advocated by the State Holstein-Friesian Association and by others, is excellent. Such a show would help to emphasize the fact that New York is a leader in agriculturel products and pursuits, and it would bring together all or nearly all of the annual meetings of the State's many associations at the same time and place.

As it is now, many of these meetings conflict in date, and, because they are held at widely separated points, it is difficult to secure good attendance A big Winter Show and Convention Week in Syracuse would improve the different conventions, cost each organization less money than at present, and help all of the organizations to work closer together for the benefit of the farmer.

A Warning to the Editor

DEAR SIR: I have a faint recollection of an adventure with chicken thieves in my younger days, but, as I remember it, the Duff Collection of American Firearms was not at that time even projected. It is now, however, pretty well completed. When the present stress of weather and finances has somewhat moderated, I might possibly be able to demonstrate at your editorial parlors fifteen minutes of a good time and the theory and practice of the breech-loading small-arm. With this on your mind, I trust that you will be moved to a satisfactory explanation of that editorial entitled "Chicken Thieves," in which your memory failed to remind you that I was the one who chased the thieves away while you cowered under the bed!

With kindest regards, GEORGE DUFF.

LINCOLN, THE MAN OF THE PEOPLE

WHEN the Norn-Mother saw the Whirlwind Hour,
Greatening and darkening as it hurried on,
She bent the strenuous Heavens and came down
To make a man to meet the mortal need.
She took the tried clay of the common road—
Clay warm yet with the genial heat of Earth,
Dashed through it all a strain of prophecy;
Tempered the heap with thrill of human tears;
Then mixed a laughter with the serious stuff.
It was a stuff to wear for centuries,
A man that matched the mountains, and compelled
The stars to look our way and honor us.

The color of the ground was in him, the red earth;
The tang and odor of the primal things—
The rectitude and patience of the rocks;
The gladness of the wind that shakes the corn;
The courage of the bird that dares the sea;
The justice of the rain that loves all leaves;
The pity of the snow that hides all scars;
The loving-kindness of the wayside well;
The tolerance and equity of light
That gives as freely to the shrinking weed
As to the great oak flaring to the wind—
To the grave's low hill as to the Matterhorn
That shoulders out the sky.
And so he came.
From prairie cabin up to Capitol,
One fair Ideal led our chieftain on.
Forevermore he burned to do his deed
With the fine stroke and gesture of a king.
He built the rail-pile as he built the State,
Pouring his splendid strength through every blow,
The conscience of him testing every stroke,
To make his deed the measure of a man.

So came the Captain with the mighty heart;
And when the step of Earthquake shook the house,
Wrenching the rafters from their ancient hold,
He held the ridgepole up, and spiked again
The rafters of the Home. He held his place—
Held the long purpose like a growing tree—
Held on through blame and faltered not at praise.
And when he fell in whirlwind, he went down
As when a kingly cedar green with boughs
Goes down with a great shout upon the hills,
And leaves a lonesome place against the sky.*

—EDWIN MARKHAM

* This poem, awarded first prize of many hundreds submitted, was read by the author at the recent dedication of the Lincoln Memorial.

"Four-score and seven years ago—"

Executive Mansion
Washington, Nov 21. 1864

To Mrs Bixby, Boston, Mass,

Dear Madam.

I have been shown in the files of the War Department a statement of the Adjutant General of Massachusetts that you are the mother of five sons who have died gloriously on the field of battle. I feel how weak and fruitless must be any word of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I cannot refrain from tendering you the consolation that may be found in the thanks of the republic they died to save. I pray that our Heavenly Father may assuage the anguish of your bereavement, and leave you only the cherished memory of the loved and lost, and the solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.

Yours very sincerely and respectfully
A. Lincoln

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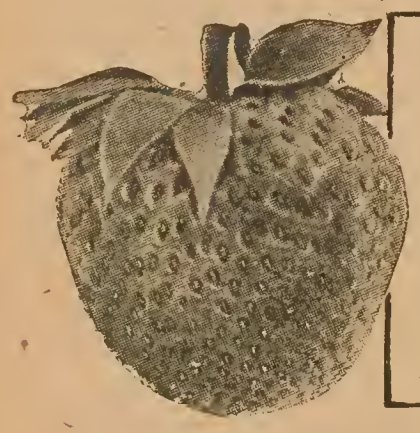

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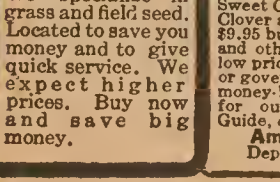

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The Land of Fur Overcoats

The Great North Country of New York

J. VAN WAGENEN, JR.

I AM writing this letter from St. Lawrence County where I am doing a week of Farm Bureau Community meetings. There are several fairly definite and distinct geographical divisions of our State—different in soil, topography, climate and agriculture. These are the Champlain Valley, the Hudson Valley, the Island, the Central Plateau, the Southern Tier, the Finger Lake Region, the Ontario Shore and the North Country—to say nothing of the Adirondack wilderness—the last constituting a really big area of our State which is almost absolutely devoid of agriculture.

It is the North Country of which I write. I came here first almost thirty years ago—nominally to attend the State Dairymens' Association at Watertown, but more specifically I imagine, to visit a youngster who had been a boy friend in college and was just then Superintendent of Schools at Gouveneur—and some how circumstances have decreed that for at least a majority of the last twenty-five years I have spent from a week to a month each year up here in agricultural work.

No Fur Overcoats for This Job, Even in the North Country

I feel as if I had come to know and understand something of this corner of the State. If I were to bound it I would say: On the south by Black River, on the west and north by Lake Ontario the St. Lawrence River and the Dominion of Canada, and on the east by the Champlain Valley and the Adirondack mountains. It comprises the larger part of Lewis County, most of Jefferson and all the arable portions of St. Lawrence and Franklin. Perhaps a little of Clinton might be added to the domain. This may not sound very big, but it does make quite a showing on the map of the State. St. Lawrence is the largest of our 61 counties. It holds almost one-tenth of all our dairy cows and out of it flow rivers of milk beyond computation. Much of Jefferson also has a very highly developed dairy industry.

An Adopted Name

The region is learning to call itself "The North Country" and to capitalize the value of the phrase. The City of Watertown advertises itself as "The Gateway of the North Country" and the leading hotel proclaims itself "The North Country's Best Tavern for fifty years." Say what you will—there is something in a name and the persistent reiteration of a phrase or idea. Long before the vogue of our very famous Dr. Coue and his theory of the cure of disease by auto-suggestion, an Englishman wrote a limerick to the effect that

"There was a young man of Kilpeacon
Whose nose was as red as a beacon,
But by saying "It's white"
Twenty times day and night,
He cured it and died an archdeacon."

Perhaps if the North Country proclaims its advantages loudly enough it will be as if it had all of them.

Some of this region is Adirondack foot-hills-rough and steep and not very fertile—not as good as the more rounded hills in other parts of the State. Most of it is on the whole a wide and level or gentle rolling plain with a slight slope toward the big river. There is not what we would call a really good steep hill in all of northern and western St. Lawrence and the same is true of Jefferson. Of course the region is long on climate and there is a fairly large collection of stock jokes relating to the weather. I think I have heard most of them—among others the statement that "snow is not really fit to use until it is at least two years old." Still, I think that these jokes rather libel the region by overstating the facts. True—winter is a real event and sleighing is rather dependable, but the elevation above sea level is slight and plenty of good corn is grown and the silo is well-nigh universal. After all—it is never a really bad climate if you can grow good corn.

Three Main Agricultural Industries

The North Country has three main agricultural industries. Far and away the most important is milk making and many sections do absolutely nothing else. A generation ago it was cheese in the southern part of the belt and butter up toward the Canadian line. Now the trail of the milk shipper is over it all, but many cheese factories are still in operation and in many instances the past season these primitive cross-roads factories have exceeded the pooled price for liquid milk.

Then down on the very level, heavy clays of Jefferson County is a region where the timothy plant is especially at home. Surely the best clean timothy hay in our State comes from here. It is a type of farming which reduces labor to the minimum and which on the whole has in the past, made money for the men who have followed it, yet I feel that it represents soil mining rather than soil conservation and in the end the results will be disastrous.

Up in Franklin County and further east in Clinton, is a region where the potato seems to be at home as almost nowhere else—a combination of light soil, high altitude and cool seasons seeming to render that finicky plant almost free from the long list of diseases that in most places make the growing of it one long conflict. The little village of Chateaugay is said to ship more potatoes than any other railroad station in the State.

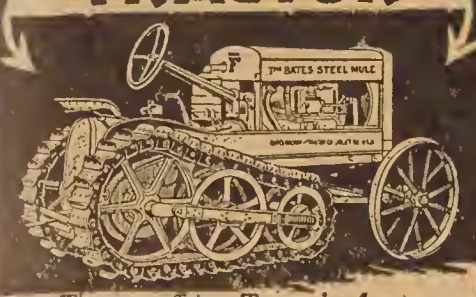
Of course this region had once, great resources of lumber, but the country was level and easy to clear, so most of it is gone although the Adirondacks still continue to contribute forest products, especially pulp wood.

Rich in Minerals

Geologists say that St. Lawrence County is a veritable museum of minerals and metals—no area of its size having a greater variety. Talc is the outstanding mineral product, but promising zinc deposits are being worked and iron has been mined and smelted in a desultory fashion for very many years.

Of course the North Country's great

THIS FAMOUS
TRACTOR



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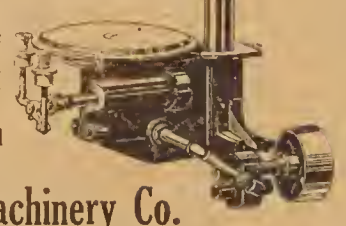

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perrenial and inexhaustible wealth is in her water-power. It has the American shore of the St. Lawrence, with its rapids and in addition a multitude of small streams along with some respectable sized rivers that come tumbling down out of the Adirondacks, and these mountain streams have a permanency in time of drought that is entirely unknown in the rest of the State. Many tens of thousands of horsepower have already been developed and as yet there has been made only a beginning. There is surely enough potential water-power available to light every home and turn every wheel in this whole region. Current for general heating purposes is another matter, because to warm an ordinary home means a tremendous consumption of power.

The People Themselves

After all, the most interesting features of any region is not the agriculture or the geography or the geology, but the people themselves and I feel that the North Country is particularly interesting in this respect. Sometime I hope to write concerning the racial stocks of our New York State farm people. In any case I must confess to a warm liking for these folks who live up here within sight of the realm of His Majesty, King George.

There is—or was—one man of the North Country of whom I would like to set down a word of tribute and remembrance.

I think it must have been at least a quarter of a century ago that I first met Andrew Tuck of Lisbon, and this acquaintance was renewed and ripened through subsequent years. I think he deserves to be numbered in that fine group of farmers who in simple, unpretentious ways have adorned the life of our State. He was a most successful farmer, a loyal friend, a man of stern standards of morality, a genial philosopher, a devout Catholic and a very courtly Irish gentleman. Many is the time I have led him to talk of his youth and life in what was still the pioneer period of this corner of our State. Best of all I liked to have him tell—with his chuckle and twinkling eyes—of how many years ago—long before the days of the Raines Law and local option, he, as one of the old Excise Commissioners induced another member of the Board to stand with him, and the two of them as a majority of that body refused to issue a liquor license and thus made Lisbon "dry" in the days when men stormed or jeered at him as a crack-brained fanatic. Thus locally he anticipated the 18th Amendment by forty years.

He himself came up out of incredible struggle and poverty as the child of a very recent Irish immigrant, but he gave to all his sons a university education and was himself a prophet and leader, zealous in all goodworks. Not so many years ago full of days and honor he laid down his tasks and went "over there." So I give you remembrance and greeting—Sir Andrew Tuck.

Looking Ahead With The Poultryman

(*Continued from page* 111)

pected, of course, consisting of a downward sweep as spring approaches, hovering on a low level till fall, then rising again, reaching the high point in November and December instead of in January and February as many believe. The same comparison with 1922 seems reasonable in the case of poultry prices.

To what extent producers should try to expand further depends largely on the individual case. Broadly speaking, larger results from the investment and energy now being expended rather than indiscriminate expansion seem to be advisable as we can't tell much about what is beyond us in 1924. Too many people must not abandon other lines and go into poultry production or the balance will be destroyed again. And destruction of the balance, the economists tell us, is what usually causes a period of prosperity and expansion to come to a close and be followed by one of contraction and depression.

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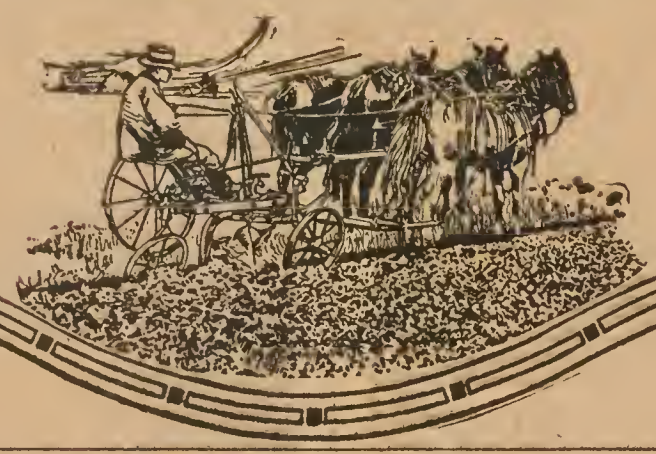

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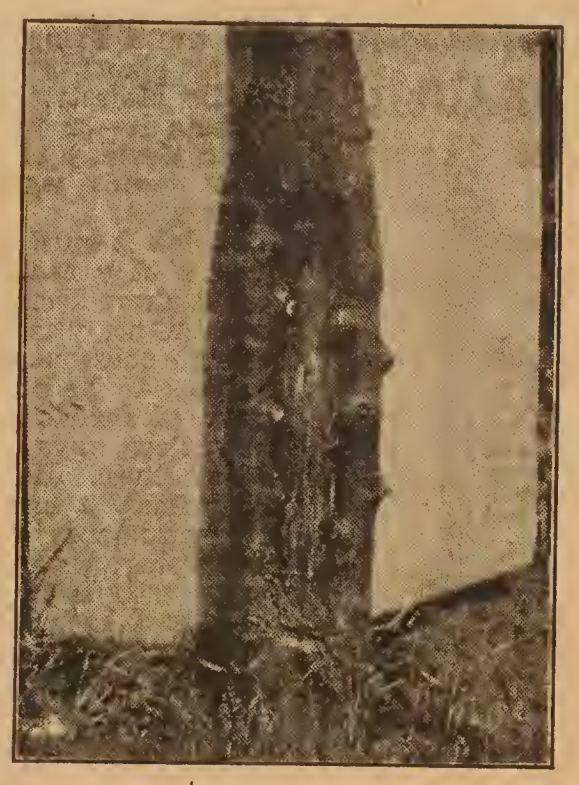
Reclaiming Old Orchards

Winter Work That Pays in Money and Satisfaction

BACK of almost every farm in New York State there is on old farm-home apple orchard. In many cases neglected it stands or rather "sprawls," for years a home eyesore, and a neighborhood "lodging house" of orchard pests innumerable and costly, a source of annoyance and loss. Experience shows that it can in many cases be reclaimed profitably to real value and beauty. Apple picking and corn harvesting accomplished, the cattle safely housed in the cold months, and a good start on the woodpile, why not give the old orchard a good chance—a fighting chance if it is worth it at all. If not, coal is high this winter, and apple wood is good fuel.

To trim or not to trim—that is the question. If there is a large per cent of fairly sound and thrifty trees in the orchard and most of these are of some commercial value, it pays to trim. If not already in the tool house, we will need on the job according to hands, two good pruning saws (single edged, one long and one short), pruning shears of best quality and a pole shears or pole-saw; also, a strong light ladder 18 to 24 feet long.

For old trees, the earlier you get at the job in the winter, the better. The pruning of younger trees may be put off until early spring or maybe late winter. Choose if possible, clear cold weather. First, if your orchard is "brambly" and encumbered with many dead and fallen limbs "clear the decks." Why not at once cut out and remove the trees you wisely decide are not worth the work in view?



A well-made bridge graft—a means of saving valuable young trees girdled by mice and rabbits

Cut out all the deadwood to start with. Then remove all broken and diseased limbs, clear to the main stem or at least to a "lateral" branch. Next, starting at the top and working around in the natural tiers of the tree's framework, take out large or small interfering and overlapping branches, always sawing your limbs off in such a way that there is no chance that its falling will make a bad tear in the tree near the point of issue. Do not prune all the wood off the lower branches, or the lower branches themselves, unless in the way when cultivating or harvesting, and do not cut all the small fruiting branches off the middle of the tree—just to make a "neat job."

We trim trees chiefly to open them up to light and air. Never remove a branch needlessly, even if it cramps the woodpile. Water sprouts are a nuisance, but even they may be turned into apple blessings. Space the best sprouts as they come, about two feet apart, and cut them back liberally about a third or half with your shears and they will make in time your new fruiting wood and part of a new framework.

Cut your top down gradually if it is inconveniently tall. Go on gradually with the whole pruning job—two or three years at least, following a long period of neglect and abuse. Get the best bulletins from your county agent. Attend, if possible, a pruning field demonstration. "Saw wood" and say nothing."

Spray and Fertilize

When you have trimmed all the trees, clean out, disinfect and patch up any bad trunk-holes, give the entire lot of trees in the orchard a good but gentle scraping with the business end of an hoe. Hitch up Tom and Jerry to the spray wagon, fill it up with dormant spray, and give your "tramps" a thoroughly liberal shower. In early spring plow shallow or disk thoroughly, spreading on and harrowing in a good coat of barnyard manure or turning in the pigs.

When the late spring "blow" begins to fall, shoot the codling moth worm spray at them. Agent will give you details—"please be brief." That's about all there is to it—on paper. And, you've done something. You will think so when those old orchards come back at you in the fall, and with a little judicious "thinning" also of fruit, you'll have apples in quantity and quality from that same orchard, that will make you sit up nights—eating.

REPAIRING BROKEN TREE CROTCH

Heavy apple and pear crops this last season taxed the strength of the trees, and where the heavily-laden branches were not braced, considerable breakage took place. This was particularly true of the rapidly growing trees which had not been trimmed during the first few years in a way to avoid weak crotches. Where cracking has taken place or danger seems imminent of splitting, some means of guying should be employed to prevent further damage. The method to follow varies so much with different trees that it is impossible to follow any one set rule.

One of the simplest yet efficient means of guying a crotch is to insert a hook bolt through each limb. The hook bolts are placed in two limbs with the hooks toward each other. The height above the crotch depends upon the size, position and length of the limbs. Seldom is it advisable to have them nearer than 6 feet to the crotch, while they may be as far from the junction of the limbs as 8 or 10 feet. The end link of a stout chain is placed over one of the hooks, while the other hook catches a link in the chain which comes at the right place to make the bracing sufficiently taut to keep the limbs from parting. The remainder of the chain can be cut away.

Where there are three or four joining limbs which must be guyed together, a good method is to place a hook bolt through each limb at the proper place, pointing the hooks toward the center of the tree. Each hook is used to hold the end link of the two chains, one going from the hook to the nearest limb on the right and the other to the nearest limb on the left. Where the guy must be kept perfectly taut at all times a turn-buckle rod or another bolt is better than a chain. The rod also permits tightening of the guy should it later become necessary. A long bolt is more servicable also than a chain if the guy must be made within a foot or so of the crotch.

The bolt or rod used must be thick enough to fit snugly in the hole bored through the limb and must project a quarter to a half inch beyond the washer at the end. The thread of the bolt must also be long enough to permit the drawing in of the bolt as the nuts are screwed up tight against the washer. At the end of the job all of the exposed parts of the bolt, nuts and wood should be tarred to prevent infection of the tree and damage to the wood.

Look in the box that holds the corn just before you turn the planter to start on another round. This beats running back across the field for the sack of corn when boxes become empty at the other side of the field.

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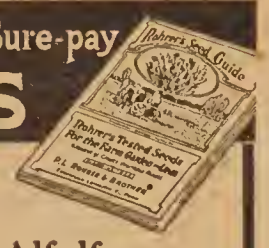

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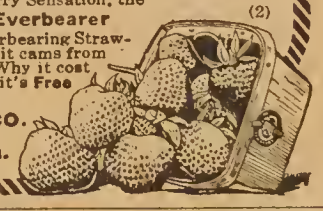

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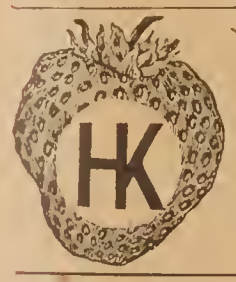

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Caring For The Farm Truck

Some Money Saving Suggestions on Winter Driving

By H. E. KNIES

HAVING filled the radiator with an anti-freeze solution too many of us think we have done our duty toward the farm truck or motor car. We have not. Not if we expect to get the greatest efficiency, economy, and the least trouble from either machine during the cold months.

An automobile engine is essentially a heat machine and it must be remembered that its greatest efficiency is obtained by keeping it as warm as possible without becoming too hot. Hence the value of a hood cover with a radiator curtain that can be adjusted. Cold weather retards the process of carburation, thickens the lubricants, increases crankcase oil dilution, and aggravates a number of other things that give little bother when the weather is warm and favorable. Keeping this in mind will simplify winter driving troubles.

With the coming of cold weather and lower temperature there is a corresponding drop in the efficiency of the electrical system, especially of the battery. There is a heavier load placed upon it in winter and it is therefore necessary to conserve current as much as possible. A battery not properly charged freezes easily, and its specific gravity should be tested frequently with a hydrometer to ascertain whether it is at the proper mark. Make sure the battery is securely fastened in place and its top dry and clean so no leakage occurs. Terminals must be tight and should be coated with vaseline to avoid corrosion and current losses. See that the ground connection is tight, a loose one consumes current.

Winter driving with its heavier drain on the storage battery means that the charging rate of the generator should be increased, particularly on generators equipped with third brush regulation. The third brush is usually held in a slot visible from the exterior and adjustment is made by loosening the binding screw and then sliding the brush in one direction or the other. The correct direction can be determined by watching the ammeter which will indicate the increase in charging current.

Check Up the Electric System

The commutator should be cleaned and new brushes installed if necessary. If the mica insulation between the commutator segments is too high it must be undercut. Otherwise sparking and poor contact will result. Oil the generator. The same treatment applies to the brushes of the starting motor. All connections from sarting motor to switch should be tightened. Chafed wires should be looked for and if found heavily taped or replaced.

To save current losses through leaks or the resistance due to poor connections and insure proper working of the electric system, all wires should be inspected especially at junction boxes, relay switches and lamps. Old lamps consume more current than new ones, consequently it usually pays to replace them. If a great deal of night driving is done, it is sometimes good policy to change the lamps for ones of lower candle power. See that the ignition system is working properly—it can waste current liberally.

If the car is kept in a cold garage or the engine is one that starts hard, it is the height of folly to start it by the continual use of the starting motor, because it takes a lot of normal running for the generator to put back into the battery the current taken out by the starting motor. A frequent result is a drained or dead battery or perhaps a freeze-up. The engine can be primed with high-test gasoline or ether, or limbered up by hand or even started with the hand crank. Holding out the clutch with the foot pedal while using the starting motor prevents the motor from revolving the transmission gears in their lubricant, stiff from cold and thus saves the additional strain on the battery.

Dangers of Choking and Racing

In winter guard against the temptation to run the engine too long with the carburetor choke closed and thereby letting an excessive amount or raw gasoline be drawn into the cylinder where it works past the pistons and down into the crankcase oil. Be sure the engine is perfectly warm before making it pull a load and never race a cold engine because the oil is still somewhat congealed and in its stiffened condition it may not lubricate the parts as it should for the time being. The result may be ruined cylinders or pistons.

The farm truck is a valuable asset. Because it is a machine it does not mean that it can be neglected

The wise driver drives slowly for a while after starting out, in order that the stiffened lubricant in the working parts away from the heat of the engine, the differential for instance, may have ample chance to become of a consistency to lubricate properly.

By keeping these suggestions in mind, much spring overhaul work and many of the difficulties attendant on winter driving can be avoided.

Use Low Gears in Heavy Weather

Practically all modern trucks are made with the gears arranged so that the car may be driven in low, intermediate, and high speeds. Some foolish drivers talk about having forgotten low speed and never needing to use it, etc., but this is one of the sure signs of an amateur driver, or of the man who prefers to show off the power of his engine at the risk of serious damage to the engine, or at best of stalling in the middle of an incline.

No truck engine is designed to do all of its work at high speed. The first and second gears are designed to assist the engineer in pulling extra heavy loads to which it is not accustomed. If the driver does not take advantage of them he is subjecting his car to an undue strain, and should not be surprised if something gives way on it.

When approaching a long steep incline or a long pull through "badgoing," get up a fair speed, if possible, so that the momentum of the car will carry it at least part of the way. As soon as the engine begins to lose speed, shift to second, and if necessary to first. Also at the first sound of a knock, retard the spark a little, but remember, that it is better to shift to the lower speed than to retard the spark, because the best power of the engine is developed with an advanced spark.

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Investigation through Farm Bureau or Agricultural Colleges invited.

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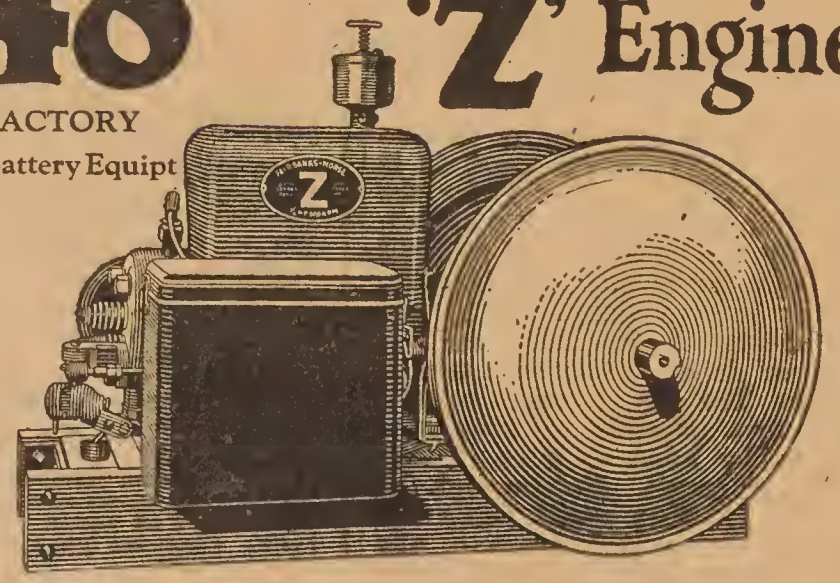

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The Fairbanks-Morse "Z" Engine is helping more than 350,000 farmers increase their farm profits. Instead of wasting their own valuable time and strength, or employing high-priced labor, they are turning the time-killing drudgery jobs over to a tireless, willing "Z" Engine.

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The magneto equipt 1½ H. P., 3 H. P., and 6 H.P. are *real* kerosene engines, but operate equally well on gasoline. Have simple high-tension oscillating magneto. Throttling governor assures steady speed Prices F.O.B. Factory. Add freight to your town.

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$44,282,000 More for Potato Growers

That is the approximate additional profit growers could make if the entire potato crop of the United States were graded by Boggs Potato Graders.

Buyers willingly pay 25c to 50c more per bag or barrel for Boggs machine-graded than for hand-graded potatoes because they then know there will be less than 3% variation in size.

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The Standard Grader

will sort and grade 75 to 700 bushels of round or long potatoes per hour (depending on size of grader) in U. S. Government sizes, eliminating culls and dirt. Equals the manual labor of from three to five men. Impossible to bruise or injure potatoes, as they are graded by an endless belt.

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Ensilage Cutter
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You can depend on the Papec for long, hard service. Ames Bros. of Weaver, Minn., write: "We are still using our N-13 Papec after nine years of service and it is going strong." Hook up a Papec to your Fordson or other light tractor. Even a farm gas engine 3 h. p. and up will run our smaller sizes.

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STRAWBERRY PLANTS, $3.00 per 1000. History and valuable illustrated book free. You will learn. Add. Mayers Plant Nursery, Merrill, Mich.

A "Shop" Story on the A.A.

UNCLE Frank Manders, one of American Agriculturist's salesmen, tells a good story of how he sold a subscription for the paper to two ladies who were trying to teach a calf to drink. The story goes as follows:

"I stopped at a place one night where two ladies were trying to feed a calf out of a pail, but could not get the calf to drink and as I went up to them I said 'Good evening ladies. My name is Mander. I am the field man for the American Agriculturist. Do you take the paper?' 'No' one lady said 'We are not interested in papers just now, we are trying to get this calf to drink.' 'Well,' I said, 'The American Agriculturist has a Service Bureau that solves any problem that confronts you or collects any debt free of charge for any paid-in-advanced subscribers. Now, lady, if you will just take a five-year subscription which is only $3 and you never will be sorry. It's a gift at that price. Why, I have taken it myself since 1876 and gave $1 a year for a great many years. Now the proposition is this: I will teach your calf to drink and give yau a five-year subscription both for $3.' 'That's a bargain, sir. Here is the pail. Just let me see you make that calf drink.' I got over in the pen, caught the calf, backed it up in the corner, stuck its head between my legs, took the pail in my left hand, placed my right hand on the top of the calf's head with my middle finger in its mouth, pressed its head down into the milk and it commenced to drink. 'Well,' she said 'Mary you go to the house and get me $3. I'm stuck for he has done the trick.'"

NEWS FROM ALBANY LAWMAKERS

The removal of Commissioner Law has been announced.

* * *

Marking time would very well state legislative progress during January.

* * *

What is known as Campbell-Downing bill, to limit all compensation insurance to State fund, is attracting much attention.

* * *

Speaker Machold when home at the week end made public announcement that he would oppose repeal of Mullen-Gage law.

* * *

The Lusk law as commonly called compelling teachers to take oath of allegiance to State and Country has received considerable discussion recently.

* * *

The Senate is in rather a difficult situation. It takes twenty-six votes to pass any bill or take any action that is controversal. The Democrats have just twenty-six, but with one of their members sick last week, another this week, matters that are to be decided on party lines are very likely to be delayed.

* * *

A bill has just been introduced in the New York State Legislature by Senator Ryan in the Senate, and by Assemblymen McGinnies in the Assembly, calling for an appropriation sufficient to build a Coliseum on the New York State Fair Grounds. It is the hope of those who are supporting the bill to get the Coliseum built in time for use of the Great World's Congress which is to meet in Syracuse during October, 1923.—By Our Special Correspondent.

IN NORTHERN NEW YORK

Essex Co.—Rain and snow have helped the water shortage generally. Wells and cisterns on many farms have been dry for some time. Two heavy snow falls have covered meadows sufficiently to protect grass and grains and have provided good roads for the letterman. Stock seems to be wintering very well. The Crown Point Co-operative Creamery paid 54 cents per pound for butterfat. Dairy cows are selling for $35 to $50, beef, 8 to 10 cents, eggs, 60 cents a dozen, potatoes, $1 a bushel.—Mary E. Burdick.

Jefferson Co.—At present we are having more snow than we have had in many years and farmers are taking advantage of the fine sleighing, drawing

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IT tells you in plain words of Seed Oats that yield better—Corn that gives more silage or fuller cribs — Clovers, Alfalfa and Timothy that will catch and make better stands — Sure Pasture Grasses — Potatoes that produce—the right types of Soy Beans, Field Peas, Barley or other crops you grow — Sold on Money-Back Guarantee. Write today. Mention this paper.

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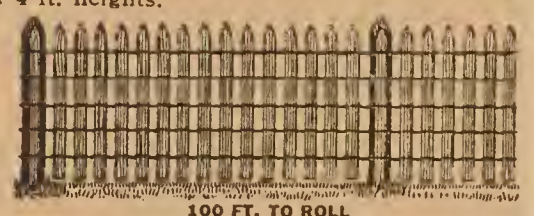

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wood and hay. Milk brought $2.86 per cwt. for 3 per cent milk at the local plant in December. January prices will be slightly less, it is reported. Butter, 60 to 62 cents, veal, 10 to 11 cents, eggs, 45 to 60 cents and in good demand. Dressed poultry, 28 to 30 cents. There have been several chicken house robberies of late in our locality. Some farmers have lost some fine breeding turkeys. Hay is moving a little better at $10 to $12. Several farms will change hands March 1st. First class tenants are scarce. Oats are bringing 45 to 50 cents a bushel. Mill feeds are high.—C. J. Doxtater.

Warren Co.—Several heavy snow falls put roads in fine condition. Things are very quiet in this section, getting wood and cutting ice are taking most of the time of the farmers. Stock of all kind wintered well. Hay is quite plentiful on account of the excellent crop last season with correspondingly low prices. The township recently purchased new snow plows and have kept the state roads open for automobiles all of the time. They use government auto trucks for power. Butter is 40 cents a pound, eggs, 38 cents a dozen, potatoes in little demand.—R. T. A.

IN WESTERN NEW YORK

Genesee Co.—Many farmers in this county are busy feeding lambs which have been shipped in here from the West. Some have been brought from as far West as the State of Washington. This branch of the live stock business seems to go particularly well in Genesee and neighboring counties. The nearness to the Buffalo live stock market seems to be one of the factors in its favor. To date 19 carloads of lambs have come into the county. On account of the nearness to market it is usually easy to load the stock and get them in during the period of high prices. The short haul to Buffalo insures arrival in good prime condition. —J. C. J.

Steuben Co.—This section is in the grip of the heaviest snow storm that we have had for many years. Roads are blocked. Mail carriers have not made their trip for some time. Herds which reacted in the first tuberculin test which was held last August are now being tested again. The potato market is very dull, quotations varying from 40 to 45 cents for table stock, eggs, 40 cents a dozen, butter, 40 to 45 cents a pound. Much lumbering is being done, as the result of the destructive wind storm last season which blew down much timber. Hired help is very scarce, wages extremely high.—C. H. Everett.

Wyoming Co.—Plenty of snow for good sleighing during the latter part of December. Many farmers are drawing water for stock. Quite a few are fattening lambs this winter. Wheat has gone up some, reaching the present price of $1.40, butter 50 cents a pound, eggs 58 cents, hogs 13 cents, beef 11 to 12 cents.—J. H. E.

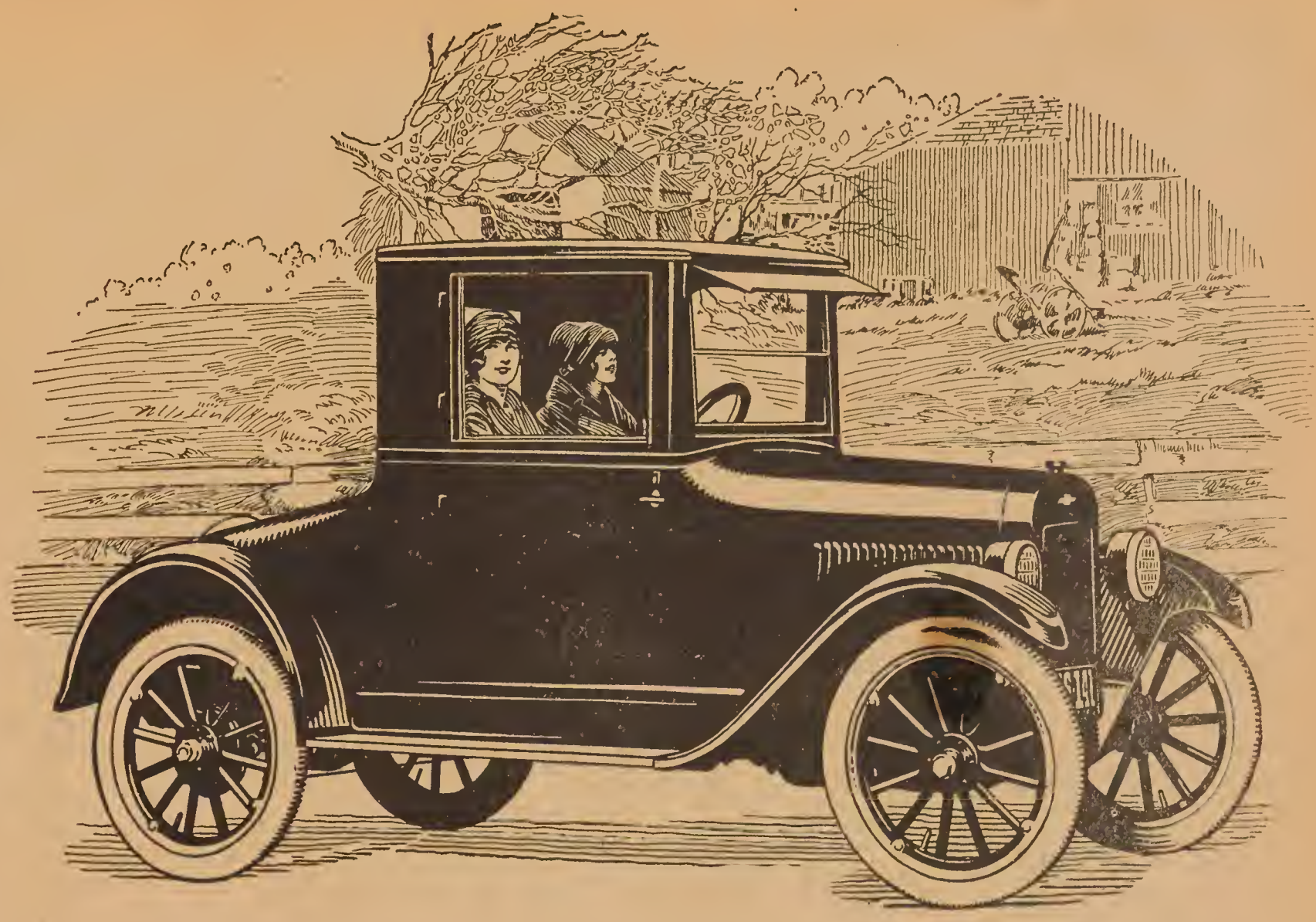
Cayuga Co.—Plenty of snow and cold weather. Prices are generally improving with the result that farmers are gaining confidence for the coming season.

CHANCE TO GET FARM HELP

There will be opportunity at Farmers' Week at the New York State College of Agriculture to secure some farm help. The Winter Courses close with Farmers' Week. In these courses are many students who desire farm work. Among these are many who have lived and worked on farms. Some of them are from 24 to 30 years of age, and have had sufficient experience to fit them to bear the responsibility of running farms as superintendents or managers. These, of course, should expect pay considerably above ordinary rates for farm hands.

Others have had less, but nevertheless good, experienced, and can fill places as foremen and experienced farm hands. Still others have had little experience on farms and should expect little pay at first.

It is planned to have students meet farmers daily, except Wednesday, at 1 o'clock at the office of farm practice and farm superintendence, in Stone Hall, to arrange for employment.



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The country woman needs her own car.

When the farm has only one car it is usually in use on the business of the farm, just when the wife or daughter needs to go to town or to a meeting or church or to make calls.

The Chevrolet Utility Coupé is an ideal car for the purpose, as it has full weather protection, a high-grade Fisher Body upholstered in gray whipcord, plate glass windows, which can be instantly lowered or raised to any desired position, a mammoth rear compartment for luggage, bundles, a jar of butter, a crate of eggs, or even a trunk.

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When Buying Acid Phosphate

THE statement is often made, "Acid Phosphate is all alike; anyway, it is only 16 per cent." Now, 16 per cent acid phosphate is not all the same. There may be as much difference between two makes of 16 per cent acid phosphate as between black and white. Some acid phosphate will contain a maximum of 10 per cent moisture, or no more than 200 pounds to a ton, whereas some of it will contain from 300 to 350 pounds of moisture. One product may be thoroughly cured, doubled, milled and screened, well seasoned; the other, a product that is shipped out as soon as it is made, screened but once, gummy and sticky, undrillable, and saturated with free phosphoric acid, which will cause it to rot and to eat the bags.

The grade of phosphate rock from which acid phosphate is made will largely determine the quality of the ultimate product. If an excess of iron and alumina is present in the phosphate rock, it will tend to make the acid phosphate gummy and sticky, which destroys the drilling qualities of the goods.

Policy of Penny Wise, Pound Foolish

If a fertilizer does not drill easily and uniformly, it is the most wasteful material that the farmer can handle. He will lose valuable time with it during the planting season, when time is his greatest asset. He will be unable to distribute it equally over each foot of surface and consequently gets nine-tenths of a crop instead of ten-tenths. He may have saved $1 per ton in the purchase price. If he used one-tenth of a ton, or 200 pounds to the acre in his application, it means that in the first cost he has saved 10 cents per acre. For the sake of this 10 cents he has sacrificed several hours of his valuable time and fertilized nine hills of corn where he should have fertilized ten.

Going further into the manufacture of acid phosphate, a cheaper grade may be manufactured by using in the process what is commonly known as "sludge acid," or sulphuric acid, which has been first used in refining petroleum. As a result, the acid phosphate may be gummy and sticky, and otherwise undesirable. It is not a safe investment if the price should be $2 per ton lower than that of acid phosphate made with "clear" or unused sulphuric acid.

What Constitutes Good Material

This brings us to the point of what constitutes the best acid phosphate obtainable. The answer is obvious. To be sure that he is obtaining the best quality of acid phosphate, the farmer should insist upon acid phosphate made only from phosphate rock containing a minimum of the oxides of iron, and alumina and "clear" sulphuric acid, or sulphuric acid which has not been used previously. He should insist upon the goods being thoroughly cured, milled and screened, free from an excess of free phosphoric acid, and containing a maximum of not over 10 per cent moisture.

I might emphasize the point of "milling and screening." In their anxiety to meet competition, manufacturers of acid phosphate sometimes ship goods directly from the original pile made when the goods were taken out of the acidulating dens. Acid Phosphate in the first curing process after it is removed from the dens has a tendency to harden and become lumpy. It is possible to eliminate this by milling and screening the material before shipment is made and after the goods have been thoroughly cured and seasoned. The farmer, of course, is the loser when he buys Acid Phosphate that has not been milled and screened because he runs great danger of delays at planting time and of an uneven distribution of fertilizer over his land.—W. L. GAY.

BUILDING UP THE PASTURES

H. H. LYON, CHEMUNG COUNTY, N. Y.

Pasture improvement is being made something of in New York, although but few farmers seem to be actually trying it out. Occasionally a man makes the attempt, and in all cases that I know where thoroughness is followed there has been satisfactory return. Improving pastures is not a creap process. It may not be worth while where land can be purchased at low values that is convenient to use and is productive. In other cases it pays to improve pastures. I have never regretted any such improvement that I have attempted. This season I know of only one attempt in this line in my vicinity. It is a five-acre piece and was plowed last fall. It is much easier to improve a piece that can be plowed, than one too steep or stony or rough for plowing.

In this case the work was a pretty thorough job. Cultivation was well done and thirteen tons of lime were used on five acres. In seeding with oats, about 300 pounds of fertilizer were used. It seemed to me that a little more fertilizer might have been an advantage, but the oats crop was splendid and the seeding was excellent. Sweet clover was added to the regular pasture mixture, and it showed up in fine shape this last summer. The growth was almost too good for the oats crop, although if the oats had been used for hay it would have been all right. Even if allowed to ripen there would be no particular difficulty. It looks as though that five acres of pasture would be something of real value another season. Let it get a good start in the spring and not graze too closely, and it will furnish an enormous amount of feed next summer.

SOWING SWEET CLOVER AND VETCH

Will you kindly advise me when is the best time to seed winter vetch in wheat both for pasture and green manure? Also let me know something about sowing sweet clover?—S. W. P., New York.

Sweet clover is most satisfactorily sown in fall wheat or rye at any time from January to March. In general practice, two pounds per acre will suffice. Sowing with a spring grain such as barley or oats is less satisfactory, as the ground is too loose. Furthermore, the hard sweet clover seeds are not so quickly acted upon by the action of the frost when sown with a spring grain. For that reason the stand is often poor, and therefore heavier applications of seed are recommended when planted with these spring grains.

Vetch, on the other hand, gives most satisfactory results when sown in the late summer or early fall, particularly from July 15 to September 15. If vetch is sown after a later date it will make very little growth. Although the small plants will live over the winter, nevertheless the cover crop will be so weak that it will be of little value. In fact, experienced growers find that to get the most satisfactory results they must get their seedlings in early. When sown alone, from thirty to sixty pounds per acre are required.

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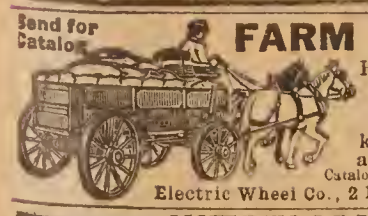

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Berry's Poultry Farm, Box 74, Clarinda, Iowa

More Farm Bills Sponsored in New Jersey

SINCE the New Jersey Legislature opened in mid-January, the New Jersey Federation of County Boards of Agriculture, representing the organized farm interests in the State, has had introduced nearly a dozen bills relating to farming. Last week a new measure introduced in the Senate would make the use of names, pictures or reference to dairy animals as fraudulent if used in connection with the advertising of dairy substitutes. This is similar to a statute now on the laws of Pennsylvania, with the exception that the New Jersey bill would also make the use of photographs of dairy cows fraudulent advertising.

Another measure of particular interest to the potato men of Central and Southern New Jersey would appropriate $10,000 to the Division of Agricultural Economics at the State Experiment Station for investigation of the economics surrounding the production and marketing of fruits and vegetables. It is hoped by this means to secure funds that the State may obtain information badly needed by the potato men.

The Fish and Game law would be changed by another bill so as to give greater freedom to hounds owned by farmers and on the premises of their keepers. As the law now stands, no hound is allowed at large except during the open season for killing quail, rabbits, etc. and the owner is liable in such instance to a fine of $20 for each offense. The proposed measure would repeal this feature, considered objectionable by many farmers.

Investigating Farmers' Markets

Growers now using the Farmers' Market at Burlington, N. J., are considering the improvement of local marketing conditions, according to Clarke W. Clemmer, County Agent in Burlington County, who has recently conducted an investigation of the Burlington Farmers' Market. Mr. Clemmer finds that practically all of the farmers are dissatisfied with the Farmers' Market in Burlington; that they favor the allotment of definite place to regular farmer patrons; and that they approve the establishment of a modern market place with a reasonable marketing fee. It is felt that such regulations could be carried out to better advantage than in the present congested street market where 20 to 30 farmers now conduct their business.

Practically all of the farmers were also in favor of definite opening and closing hours so that all farmers would have equal opportunity, and so that competition would be eliminated so far as preference of place in the market is concerned. Mr. Clemmer's census of marketing hours showed a wide difference of opinion, although the majority were agreed that Monday, Wednesday, and Friday should be the market days. Opinion was fairly well divided among the patrons of the market on the question of operating the market every day during the height of the season.

Affairs at the State College

The New Jersey State College of Agriculture at New Brunswick, N. J., will conduct a one-week course in the practical operation of tractors and gas engines, to be held at the College Farm, March 5 to 10. Professor E. R. Gross of the Rural Engineering Department will take charge of the lectures and demonstrations which will cover the practical problems of engine operation, tractor hitches, also field operation and tractor selection. A fee of $3 will be charged to cover the cost of gas, oil, laboratory outlines and repairs. The course is open to 20 men. There are 12 different types of tractors available in the laboratory.

The Rutgers College Egg Show to be held under the auspices of the Juniors' in Poultry Husbandry at the State College will be conducted from February 14 to 16. The Experiment Station workers, egg producers, boys' and girls' clubs, students at the College and High School students in vocational agriculture are entitled to enter the contest. Sweepstakes will be offered for the grand champion in each class, while five ribbons will be given on both white and brown eggs in each class. Every entry will be scored and a score card returned to the individual contestant.

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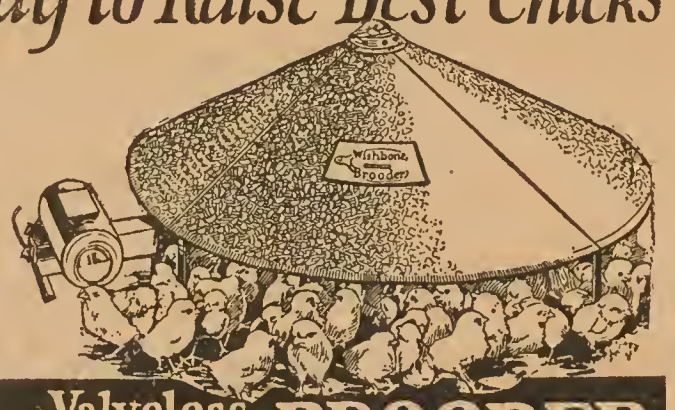

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What Makes Milk?

Leguminous Hay—Our Own Best Bet

By H. E. BABCOCK

RECENTLY I reported for the American Agriculturist the results of a feeding test on one of our farms last year where we fed a 20 per cent protein-grain ration in comparison with a 24 per cent ration. The cows in this test were all fed fine clover and alfalfa hay, and as those who read the article will recall, the cows on the 20 per cent ration gave as much milk during a 60-day period as those on the 24 per cent ration. This was as Prof. Savage had predicted to us, and has resulted in our using a 20 per cent protein ration now altogether when we have clover and alfalfa hay available. This enables us to save three to five dollars a ton on our grain bill.

Having made such a saving from just a little study of our business, we have become more alert to other opportunities for savings and I have become particularly interested in the amount of milk that can be produced from good clover and alfalfa hay. Let me say right here that I have a strong suspicion that we as dairy farmers have been led to think of the problem of milk production almost entirely in terms of purchased concentrates, and by so doing we have neglected our own best bet—the leguminous hay that we can grow on our own farms.

As yet, I must admit, we have no very definite evidence with which to support my position, but as a beginning I have made a little study of what our cows are actually eating and how they are producing, which I am putting down here for what it is worth. I will let those who read it draw their own conclusions, while I am drawing mine.

To get at the problem, the other day when I had a few moments time, I weighed up the feed that three different cows were eating a day. These feed weights, together with the milk weights and a description of the cow follows:

King Belle's Baldeen, purebred Guernsey, 5 years old, fresh 6 weeks. Milked and fed four times a day, on A. R. test. Day's production 73.9 lbs. Grain consumed, 18 lbs.; beet pulp and bran mixed fifty-fifty, 6 lbs.; molasses, 2 lbs.; cabbage, 36 lbs.; silage, 20 lbs.; second cutting alfalfa hay, 10 lbs. Total feed, 92 lbs.

King's Mayflower, purebred Guernsey, 4½ years old, fresh 5 weeks. Milked and fed twice a day. Day's production 35 lbs. Grain consumed, 15 lbs.; silage, 25 lbs.; second cutting alfalfa hay, 16 lbs. Total feed, 56 lbs.

Jennie, grade Holstein, 8 years old, fresh 6 weeks. Milked and fed three times a day. Day's production 63 lbs. Grain consumed, 15 lbs.; beet pulp, 2¼ lbs.; molasses, 1 lb.; silage, 51 lbs.; second cutting alfalfa hay, 12 lbs. Total feed, 81 lbs.

As soon as I got my figures together as presented above, I was struck with one point which seemed to stand out like a sore thumb. With a range in production of from 35 to 73.9 lbs. there was a range in *amount of grain fed of but 3 lbs.* In my judgment the cows are about equally good producers. The grain fed to all of them was practically the same; the methods of handling the cows quite different. I have already drawn some conclusions on the feeding of the Holstein, which I think will result in cheaper milk production. I may report it later. In the meantime I would like to hear from American Agriculturist readers who have practical suggestions for changes.

UP TO THE INDIVIDUAL DAIRYMAN HIMSELF

We are approaching the period when withdrawals may be made from the Dairymen's League Association, Inc. There is much speculation as to the extent to which dairymen throughout League territory will avail themselves of this opportunity. One thing is sure; so far a wonderful degree of loyalty has been manifested in most parts of the territory. Men are doing a great deal of thinking these days, and it would seem that the more they think the more sure most men are that the only fair thing, the only reasonable thing to do is to hold true to the pooling method of marketing milk.

This is May Walker Ollie Homestead the new American champion butter producer with a record of 1523.23 pounds butter. Can you identify physical characterists that aided her in making her record?

President Vincent, of the Broome County Dairymen's League, could not have given better advice on withdrawing from that organization than he did at the recent meeting held in Binghamton. "Think it all through to the end," he said. "Then if you do really believe that it is for your best interest and the best good of us all that you withdraw, then do so. But I believe that if you do thoughtfully and carefully think things through, you will see that your best good will be served by staying with the organization."

Some Good Coming from It

One good thing is coming from the agitation of the pooling and the non-pooling question. Men are learning to think for themselves as they have not lately done on any subject which has been presented to them. They are attending meetings where reliable men speak; they are reading everything they can get, and acquainting themselves with all phases of this important matter. Where in the beginning few understood the real meaning of the pooling system, now practically every farmer has a clear and definite idea of the advantages such a cooperative work affords.

Still another favorable result is being gained. Men have more faith in each other. More and more the spirit of animosity that for a time seemed to prevail on the part of some poolers and non-poolers toward one another is passing away. This is right. After all, it is a matter of business with us all. We cannot all look at any subject exactly alike. The best thing, the right thing, is to appreciate the fact that farmers never are so strong as when they stand together—get together and

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stand together is the only watchword that will bring us out right.

The farmers of our day do not so much need instruction along definite lines of farming. What they do need is inspiration. The man who can give that is a public benefactor.—E. L. V.

MANY BILLS AGAINST FILLED MILK

Filled milk and false advertising bills will be introduced in eighteen State legislatures this winter, according to The Holstein-Friesian Association of America. The filled milk bills prohibit the manufacture and sale of filled milk within the State, and the false advertising bills prohibit the use of dairy terms, dairy cow pictures and the names of dairy cattle breeds in the advertising of butter substitutes.

States in which the two bills will be introduced are Connecticut, Illinois, Indiana, Kansas, Maine, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, South Dakota, Vermont and West Virginia. Wisconsin, Ohio and New York have enacted filled milk bills and Iowa, Michigan and Pennsylvania have enacted butter advertising bills.

Agricultural commissioners, State dairy associations and Farm Bureaus of the various States favor this legislation. The Federal Voigt bill, which has passed the House and is now in the Senate, prohibits the shipment of filled milk in inter-state commerce and forbids the manufacture and sale in the District of Columbia only.

SYRACUSE WINS DAIRY CONGRESS

The Board of Directors of the National Dairy Association received invitations from fifteen cities to hold the Dairy Show of 1923 with them, and would have been delighted to have decided upon any one of them as the place to go, but there were many things to consider, the larger things being the necessity for an Eastern location, because of the World's Dairy Congress to be held at the same time and place; next, the physical equipment for housing the Show, and last, but by no means least, the facilities for reasonably housing the people in a manner creditable to the city and to the Exposition, and then, the still greater thing than all of these—the place from where the great message for better agriculture and health and welfare of the people could be sent out from, hoping for the greatest results.

The men who urged the coming of the Show to New York State, were seemingly very much of the opinion that the men were, who, in 1916 urged the coming of the Show to New England; that the country needed it for its inspirational value for a better agriculture and better dairying; and when you take into consideration that a farm in New York State, with buildings and soil of equal merit to that of a farm in the Central West, can be purchased for less than one-half of what the same would sell for in the Central West, with the tremendous markets of the East available to the producer, there must be some reasonable work that our organization can perform to help correct this condition; and so, the National Dairy Exposition will be in the nature of a World's Dairy Show, a World's Dairy Congress, and the Conventions of the various branches of the dairy industry—all coming to Syracuse, New York, October 6 to 13, to do for that section of country just what the people of that section may be willing to take from this Exposition and Conventions.

If the leaders of agricultural endeavor in the East realize just what benefits they can secure from the teachings of this Show toward rebuilding agriculture and dignifying the calling, there will be no lack of enthusiastic support and cooperation for the success of the Show; if they do not, then no gain will be made from the trip.

We hope to make this year's Show the greatest of all Dairy Shows ever held anywhere in the world, and ask the most earnest and cordial support of all of the business and industrial and agricultural life of the East, that we may do the greater good for that section.—W. E. SKINNER.

There are now more than 10,000 De Laval Milkers in use

in the United States and Canada, and it is doubtful if any group of users of any kind of equipment is more satisfied.

This is a remarkable record in view of the fact that these milkers were introduced and sold during the worst financial depression the country has ever known—when no equipment of any kind was purchased except that which was absolutely necessary, and which would make and save money.

The De Laval Milker has proved in a striking way that it is a necessity on every farm where ten or more cows are milked, and that it will save and make enough money to pay for itself in a short time.

Many cows milked the De Laval way have made splendid records, most notable of which is Orndyke Pietertje Korndyke, owned by Mr. R. R. Stevens of Bowmanville, Ontario, who has just recently made a world's record in the 305-day class. Owners, almost without exception, state they get more milk with a De Laval, with the same cows and feed, than with any other method of milking, either hand or machine.

More than this, some of the best certified milk today is being produced with a De Laval, proving that it is capable of producing the highest grade of milk.

The De Laval Milker has proved beyond question of doubt that it can produce more and cleaner milk, at great saving in time and labor. It increases production and cuts the cost of production. It is bound to make more profit and put more satisfaction in the dairy business. Sold on easy terms. Write for complete information.

The De Laval Separator Co.

NEW YORK 165 Broadway CHICAGO 29 E. Madison St. SAN FRANCISCO 61 Beale St.

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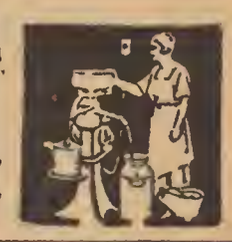

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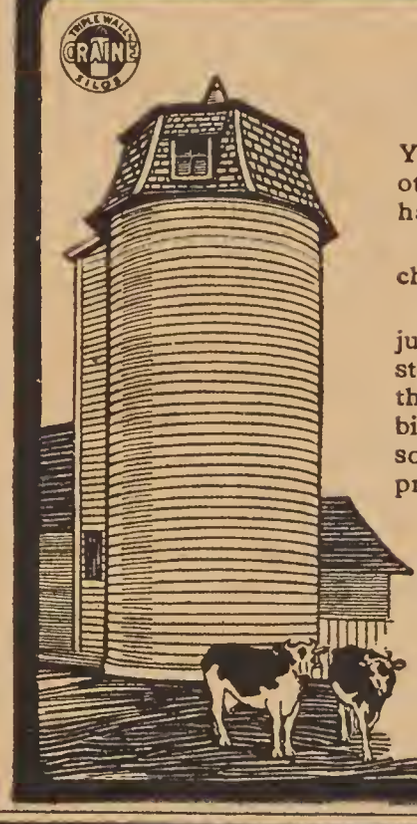

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Craine Silos are constructed to keep warmth and juices in; to keep cold and weather out. A strong stave silo inside is covered with thick Silafelt, and the patented, Crainelox Spiral Covering outside binds the entire structure. This forms a handsome building with every square inch of surface protected in every direction.

Any old stave, iron-hooped silo can be rebuilt into a permanent Craine 3-Wall Silo at about half the cost of a new one.

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Water Supply Problems

Will you please give me advice what I could do to get the water up from my spring which is about 85 feet from the house and 12 feet below the level. I dug a hole 5 feet deep and stoned up like a well. There is not enough flow for a hydraulic ram.—G. K., New York.

IT is a little bit hard to give the best advice in a case of this kind, because we do not know all of the local particulars. Probably the simplest thing is to intall a suction pump to draw it up, operated either by windmill, gasoline engine, or electricity. A good pump ought to do this all right if the total vertical raise is only 12 feet. You can keep the pump operating for sufficient time to get the necessary supply.

Your spring seems to have a very small flow. Is there some way in which you could increase this flow so that you would have a large supply of water available. Sometimes the use of a small amount of explosive in the neighborhood of the spring will open up a strata a little so that the water-flow is increased. Of course, this has to be handled very carefully, and it might not be a desirable thing to experiment.

SIZE OF PIPE; COST OF INSTALLATION

I have a spring 100 rods away from my bulldings. The spring is about 15 feet higher than the barn. What size pipe should I use in order to get water enough for 40 head of cattle. Could you give me au estimate on cost, and could this water be siphoned on this 15-foot head?—A. B. F., New York.

With a spring located as you describe, you certainly have an excellent chance to get a good water supply to your buildings. The 15-foot head will give you a pressure of about six pounds, allowing for friction in the pipe, and this will be enough to distribute the water all through the buildings, provided, of course, that you do not attempt to raise it higher than the spring itself. I would recommend that you use a one-inch pipe to get the water into your barn. A smaller pipe would probably do it, but there is a chance of deposition of mineral matter in the pipe which would form a scale, thus reducing its effective diameter.

I am not quite sure just what you mean by siphoning the water on this 15-foot head. With the spring higher than the barn, there is no need of siphoning, since gravity itself will cause the water to flow directly to the barn. So far as the cost is concerned, I would not want to guess at this, as so much will depend on local conditions. You will have to put the pipe below ground, and, of course, get it deep enough so that it won't freeze. The spring should be protected with a concrete curb. All these things are variable in cost, and the best thing you can do is to get an estimate from your local contractor.

GOOD LAYOUT FOR POWER PLANT

I have a very desirable site on a small stream to install a water power electric plant for lights and power. What quantity of water will be required with a head of ten or twelve feet or more if necessary (ten or twelve feet can be obtained with very little expeuse) to operate a 1½ K. W. 110-volt generator? What kind and size wheel should be used?—A. K., Ohio.

With a fall of 10 or 12 feet and anything like an adequate supply of water, it will be easy to develop plenty of power to supply electricity for all small power uses about the home. With a fall of 12 feet, allowing for some deduction on account of loss of efficiency in power transmission, you will need a flow of approximately 50 cubic feet of water per minute. Of course, the greater the fall in excess of 12 feet and the greater the flow in excess of 50 cubic feet per minute, the greater will be your power developed.

In this installation, I think a rather broad-bladed over-shot wheel would probably be the most satisfactory. As in many other cases where an installation of this size is being male, it would be very much worth while to have a water power expert look over the location. He will advise you as to the best place for putting in the dam, constructing the dam itself, arranging the wheel, power house, and the other engineering features.

To Prevent Freezing—The proper and most convenient way to prevent freezing of drinking water in winter is to empty the drinking vessel each night before dark. If the cool weather comes down too rapidly and the water in the vessel becomes frozen, a convenient method is to invert the drinking fountain and to pour a little hot water on the outside. The ice melts around the edge and the lump drops out.

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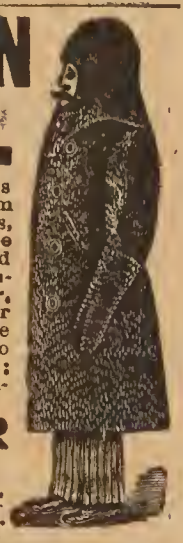

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Meeting Market Problems

How American Agriculturist Can Help You

A LARGE number of letters have been received from farmers in response to our editorial offering to do what we could to to help farmers with their market problems. We cannot do the impossible, but we think we can help in many cases by giving you special information that is otherwise difficult to obtain. We are publishing a few of the letters here to show you the type of market help which American Agriculturist is furnishing and to give you through these letters some hints that may apply to your own problem.

What About Private Trade?

My sons have gone into the poultry business, not fancy, but for eggs and raising broilers. They are at this time getting from forty to fifty dozen white eggs daily and are getting 53c at the door this week. They had been shipping to New York for years, but there are times when the New York market is bad. Can you locate some good private trade for us? Goods are strictly fresh in every way.

We have many requests from shippers to suggest to them a "good private trade" for their eggs, but experience has taught us that unless the shipper is very close to the city where he can come in personally and establish his contacts and check up on anything that goes wrong, it is inadvisable to try to ship to private dealers. The great difficulty comes in their unreliability as to credit and the fact that such an outlet is very uncertain. Whenever private buyers can do better by buying in the wholesale market, than taking your goods, they are likely to reject it or refuse to pay you the price you think you should get, whereas if you ship to a licensed and bonded commission merchant he is required to return to you the actual amount for which your eggs sell. The commission business has been of bad repute because of the bad practices of many men in the trade, but there are some firms who would look after your interests in the best possible way.

I would advise you to study your nearby market carefully and compare prices with the net returns that you would get from shipping to a large market. If you are getting locally, 53c per dozen under present marketing conditions, you could not hope to do any better by shipping to any large market in the country.

Shipping Veal Calves

I saw a paragraph on editorial page of American Agriculturist about the service you were giving in regard to marketing problems. We are some distance from railroad station and I wish to deal with veal calves. The calf buyers that come from town pay low prices because there is not much competition. I am discouraged with the low price of calves and the high price of feeds. If I dressed the calves at home could you find a reliable market and one that pays fair prices? We would have about twenty calves per year as our dairy is not real large.

You might very well try dressing your calves at home and shipping them either to New York City or Newark. It is always advisable for a farmer to study his nearest markets and compare them with large wholesale markets in order to determine whether it is advisable for him to ship to a large market. Your nearness to New York, however, would seem to make it very safe to attempt shipping there.

Enclosed I am sending you a set of instructions for the dressing of calves. I am also sending you under separate cover a list of Licensed and Bonded Commission Merchants in New York State.

Commission receivers in New Jersey are not licensed and bonded by the State as they are in New York, but the Adam Hebeler & Company have the highest financial rating of any commission merchants in Newark. If there is any further information we can get for you, please write to us.

Markets for Eggs, Pigs and Calves

Saw your notice in the American Agriculturist for better marketing. I am very much interested. We do not seem to get the right prices for sorted eggs, also have pigs and calves to market. Will you kindly send me information?

We have sent ycu under seperate cover a list of Licensed and Bonded Commission Merchants in New York State. Before you ship to any of these firms I would suggest that you write them directly to get shipping instructions and find out whether they wish to receive your products. It is always advisable to send notice by mail at the same time you ship.

Enclosed are instructions on the dressing of calves. In dressing small pigs be sure to turn their feet up and put skivers in. Leave the head on and the hearts and livers in, and wrap in heavy parchment paper. The Health Department of the City of New York has to inspect any dressed meats received here before they are sold, and a nominal fee of 40 or 50c is charged for this inspection to the shipper.

We are also sending a copy of the Daily Market Report issued by the State Department of Farms and Markets which you can obtain without cost on application to that Department at 90 West Broadway, New York City. If you will write us more specific information as to the quantities and kind of produce you have to market, we will be glad to give you all the help we can in marketing them profitably.

A Plan for Small Egg Shippers

I am much interested in your Market Service plan. We farmers out here have a good deal of trouble disposing of our eggs, most of our stores will not accept them in trade for groceries. So we are somewhat baffled to know just how to dispose of them at any advantage. Most of us have not enough hens to ship a crate a week. Could you suggest us a plan whereby four of us could cooperate to ship a crate or more each week from our neighborhood. Please send me egg prices on whites and browns and mixed eggs. Please inform me on rates for shipping and the best place to get crates and what they cost and how long would it take to get returns, shipped from Oakwood, Cayuga County, N. Y. to New York?

We would suggest that you and your neighbors assemble your eggs once or twice a week and sort them up very carefully as to size and color of shell, also candle them and grade them according to freshness. You ought really to ship twice a week in order to get your eggs to market in the best condition. You can obtain from Cornell University, Department of Publications, the bulletin "How to Candle Eggs" and also the bulletin on marketing eggs. It would not be necessary for you to go through any special formality in organizing to ship cooperatively as long as there are only a few of you who know each other very well, and you can handle the business without a great deal of time and trouble.

It would be advisable, however, that those of you who agree to ship together draw up a definite written agreement and sign it, covering just what you propose to do, and agreeing to abide by the decision of the person designated to do the candling or packing or by the majority of you as to the grading of your eggs. With each lot of eggs that you receive and pack, you give the individual producer a receipt for the number of eggs of each different grade that he delivers. Then when you get your returns from the market you can divide up those returns according to the number of eggs of each kind delivered by each poultryman. If one person looks after the packing and shipping of the eggs he should be paid a nominal amount to cover the time required. Usually cooperative endeavors fail if they depend upon voluntary service. It ought to be possible for you to do this however at a very small cost per dozen.

It would be a good idea to demand of the firm that handles your eggs in the market, definite criticism as to how you can improve the quality. New York is the finest market in the country for fancy eggs, but it is often oversupplied with ordinary grades.

Your express rate per case of eggs from Oakwood to New York City is approximately 75c.

When Packing Eggs in Cases

It has been the experience of shippers that NEWSPAPERS SHOULD NOT BE USED IN PLACE OF FLATS OR AS PADS. It pays to buy new flats and fillers and new clean excelsior pads. If you do not know where to get them, write the Market Department, American Agriculturist.

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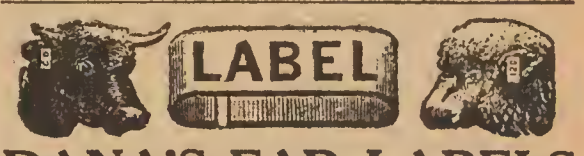

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The Valley of the Giants—*By Peter B. Kyne*

BRYCE laughed. "Pal," he declared, "if you and I have any brains, they must roll around in our skulls like buckshot in a tin pan. Here we've been sitting for three months, or lying awake nights trying to scheme a way out of our difficulties, when if we'd had any sense we would have solved the problem long ago. Listen, now! When Bill Henderson wanted to build the logging railroad which he afterward sold to Pennington, and which Pennington is now using as a club, did he have the money to build it?"

"No."

"Where did he get it?"

"I loaned it to him. He only had about eight miles of road to build then, so I could afford to accommodate him."

"How did he pay you back?"

"Why, he gave me a ten-year contract for hauling our logs at a dollar and a half a thousand feet, and I merely credited his account with the amount of the freight-bills he sent me until he'd squared up the loan, principal and interest."

"Well, if Bill Henderson financed himself on that plan, why didn't we think of using it for financing a road to parallel Pennington's?"

John Cardigan sat up with a jerk. "By thunder! I never thought of that!"

"All right, John Cardigan, continue to listen: to the north of that great block of timber held by you and Pennington lie the redwood holdings of the Trinidad Redwood Timber Company."

"Never heard of them before."

"Well, timber away in there in back of beyond has never been well advertised, because it is regarded as practically inacessible. By extending his logging-road and adding to his rolling-stock, Pennington could make it accessible, but he will not. He figures on buying it cheap when he gets around to it, for the reason that the Trinidad Company cannot possibly mill its timber until a railroad connects its holdings with the outside world."

"I wonder why the blamed fools ever bought in there, Bryce."

"When they bought, it looked like a good buy. You will remember that some ten years ago a company was incorporated with the idea of building a railroad from Grant's Pass, Oregon, on the line of the Southern Pacific, down the Oregon and California coast to tap the redwood belt."

"I remember. There was a big whoop and hurrah and then the engineers found that the cost of construction was prohibitive."

"Well, before the project died, Gregory and his associates believed in it. They decided to climb in on the ground floor, so they quietly gathered together thirty thousand acres of good stuff and then sat down to wait for the railroad. And they are still waiting. Gregory, by the way, is the president of the Trinidad Redwood Timber Company. He's an Edinburgh man, and the fly American promoters got him to put up the price of the timber and then mortgaged their interests to him as security for the advance. He foreclosed on their notes five years ago."

"And there he is with his useless timber!" John Cardigan murmured thoughtfully. "The poor Scotch sucker!"

"He isn't poor. The purchase of that timber didn't even dent his bankroll. But he would like to sell his timber, and being Scotch, naturally he desires to sell it at a profit. In order to create a market for it, however, he has to have an outlet to that market. We supply the outlet—with his help; and what happens? Why, timber that cost him fifty and seventy-five cents per thousand feet stumpage—will be worth two dollars and fifty cents—perhaps more."

THE elder Cardigan bent his sightless gaze upon his son. "Well, well," he cried impatiently.

"He loans us the money to build our road. We build it—through our timber and into his. We put up a twenty-five-years contract to haul his logs to tidewater at a base freight-rate of one dollar and fifty cents, with an increase of twenty-five cents per thousand every five years thereafter, and an option for a renewal. We also grant him perpetual booming-space for his logs in the slough which we own. In addition we sell him, reasonably, sufficient land fronting on tidewater to enable him to erect a sawmill, lay out his yards, and build a dock out into the deep water.

"Thus Gregory will have an outlet to his market by water; and when the railroad to Sequoia builds in from the south, it will connect with the road which we have built from Sequoia up into Township Nine to the north; hence Gregory will also have an outlet to his market by rail."

"Have you talked with Gregory?"

"Yes. I met him while I was in San Francisco. Somebody brought him up to a meeting of the Redwood Lumber Manufacturers' Association, and I pounced on him like an owl on a mouse."

John Cardigan's old hand came gropingly forth and rested affectionately upon his boy's. "What a wonderful scheme it would have been a year ago," he murmured sadly. "You forget, my son, that we cannot last in business long enough to get that road built, even though Gregory should agree to finance the building. The interest on our bonded indebtedness is payable on the first——"

"We can meet it, sir."

"Aye, but we can't meet the fifty thousand dollars which we are required to pay in on July first of each year toward the retirement of our bonds. By super-human efforts, we managed to meet half of it this year and procure an extension of six months on the balance due.

"THAT is Pennington's way. He plays with us as a cat does with a mouse. And now, when we are deeper in debt than ever, when the market is more sluggish than it has been in fifteen years, to hope to meet the interest and the next payment taxes my optimism. Bryce, it just can't be done. We'd have our road about half completed when we'd bust; indeed, the minute Pennington suspected we were paralleling his line, he'd choke off our wind."

But Bryce contradicted him earnestly. "It can be done," he said. "Gregory knows our rating in the reports of the commercial agencies is a good as it ever was, and a man's never broke till somebody finds it out."

"What do you mean?"

"If we can start building our road and have it half completed before Pennington jumps on us, *Gregory will simply have to come to our aid in self-defense.* Once he ties up with us, he's committed to the task of seeing us through."

John Cardigan raised his hand. "No," he said firmly, "I will not allow you to do this. That way— that is the Pennington method. We will not take advantage of this man Gregory's faith. If he joins forces with us, we lay our hand on the table and let him look."

"Then he'll never join hands with us, partner. We're done."

"We're not done, my son. We have one alternative, and I'm going to take it. Your mother would have wished it so."

"You don't mean——"

"Yes, I do. I'm going to sell Pennington my Valley of the Giants. It is my personal property, and it is not mortgaged. Pennington can never foreclose on it—and until he gets it, twenty-five hundred acres of virgin timber on Squaw Creek are valueless—nay, a source of expense to him. Bryce, he'll pay the price, when he knows I mean business."

With a gesture he waved aside argument. "Lead me to the telephone," he commanded; and Bryce, recognizing his unalterable determination, obeyed.

His father proceeded to get the Colonel on the wire. "Pennington," he said hoarsely, "this is John Cardigan speaking. I've decided to sell you that quarter-section that blocks your timber on Squaw Creek."

"Indeed," the Colonel purred. "I had an idea you were going to present it to the city for a natural park."

"I've changed my mind. I've decided to sell at your last offer."

"I've changed my mind, too. I've decided not to buy—at my last offer. Good-night."

Slowly John Cardigan hung the receiver on the hook, turned and groped for his son. "Lead me upstairs, son," he murmured presently. "I'm tired. I'm going to bed."

WHEN Colonel Seth Pennington turned from the telephone and faced his niece, Shirley read his triumph in his face. "Old Cardigan has capitulated at last," he cried exultingly. "We've played a waiting game and I've won; he just telephoned to say he'd accept my last offer for his Valley of the Giants."

"But you're not going to buy it. You told him so, Uncle Seth."

"Of course I'm not going to buy it—at my last offer. It's worth five thousand dollars in the open market, and once I offered him fifty thousand for it. Now I'll give him five."

"I wonder why he wants to sell," Shirley mused. "From what Bryce Cardigan told me once, his father attaches a sentimental value to that strip of woods."

"He's selling because he's desperate." Pennington replied gayly. "I'll say this for the old fellow: he's no bluffer. However, since I know his financial condition almost to a dollar, I do not think it would be good business to buy his Valley of the Giants now. I'll wait until he has gone busted—and save twenty-five or thirty thousand dollars."

"I think you're biting off your nose to spite your face, Uncle Seth. The Laguna Grande Lumber Company needs that outlet. In dollars and cents, what is it worth to the Company?"

"If I thought I couldn't get it from Cardigan a few months from now, I'd go as high as a hundred thousand for it to-night," he answered cooly.

"In that event, I advise you to take it for fifty thousand. It's terribly hard on old Mr. Cardigan to have to sell it, even at that price."

"You do not understand these matters, Shirley. Don't try. And don't waste your sympathy on that old humbug. He has to dig up fifty thousand dollars to pay on his bonded indebtedness, and he's finding it a difficult job. He's just sparring for time, but he'll lose out."

AS if to indicate that he considered the matter closed, the Colonel drew his chair toward the fire, and picked up a magazine. Shirley studied the back of his head for some time, then got out some fancy work. And as she plied her needle, a thought gradually took form in her head until eventually she murmured loud enough for the Colonel to hear:

"I'll do it."

"Do what?" Pennington queried.

"Something nice for somebody who did something nice for me," she answered.

"That McTavish girl?" he suggested.

"Poor Moira! Isn't she sweet, Uncle Seth? I'm going to give her that black suit of mine. I've scarcely worn it——"

"I thought so," he interrupted with an indulgent yawn. "Well, do whatever makes for your happiness, my dear. That's all money is for."

About two o'clock the following afternoon old Judge Moore, of the Superior Court of Humboldt County, drifted into Bryce Cardigan's office, sat down uninvited, and lifted his long legs to the top of an adjacent chair.

"Well, Bryce, my boy," he began, "a little bird tells me your daddy is considering the sale of Cardigan's Redwoods. How about it?"

Bryce stared at him a mement questioningly. "Yes, Judge," he replied, "we'll sell, if we get our price."

"Well," his visitor drawled, "I have a client who might be persuaded. I'm here to talk turkey. What's your price?"

"Before we talk price," Bryce parried, "I want you to answer a question."

"Let her fly," said Judge Moore.

"Are you, directly or indirectly, acting for Colonel Pennington?"

"That's none of your business, young man—at least, it would be none of your business if I were, directly or indirectly, acting for that unconvicted thief. To the best of my information and belief, Colonel Pennington doesn't figure in this deal in any way, shape, or manner; and as you know, I've been your daddy's friend for thirty years."

BRYCE would have staked his honor on the Judge's veracity, but nobody knew better than he in what devious ways the Colonel worked.

"Well," he said, "your query is rather sudden, Judge, but still I can name you a price. I will state frankly, however, that I believe it to be over your head. We have several times refused to sell to Colonel Pennington for a hundred thousand dollars."

"Naturally that little dab of timber is worth more to Pennington that to anybody else. However, my client has given me instructions to go as high as a hundred thousand if necessary."

"What!"

"I said it. One hundred thousand dollars of the present standard weight and fineness."

Judge Moore's last statement swept away Bryce's suspicions. He required now no further evidence that the client could not possibly be Colonel Seth Pennington or any one acting for him. For a moment Bryce stared stupidly at his visitor. Then he recovered his wits.

"Sold!" he almost shouted, and extended his hand to clinch the bargain. The Judge shook it solemnly. "The Lord loveth a quick trader," he declared, and reached into the capacious breast pocket of his Prince Albert coat. "Here's the deed already made out in favor of myself, as trustee."

"Client's a bit modest, I take it," Bryce suggested.

"Oh, very. Of course I'm only hazarding a guess, but that guess is that my client can afford the gamble and is figuring on giving Pennington a pain. In plain English, I believe the Colonel is in for a razooing at the hands of somebody with a small grouch against him."

"May the Lord strengthen that somebody's arm," Bryce breathed fervently. "If your client can afford to hold out long enough, he'll be able to buy Pennington's Squaw Creek timber at a bargain."

"My understanding is that such is the programme."

Bryce reached for the deed, then for his hat. "If you'll be good enough to wait here, Judge Moore, I'll run up to

(*Continued on page* 127)

WHAT HAS HAPPENED IN "THE VALLEY OF THE GIANTS"

"I'M just naturally stubborn" said Bryce Cardigan cheerfully.

He found his father, lumber pioneer, blind and almost penniless. He took on old Cardigan's fight against Colonel Seth Pennington, unscrupulous Eastern operator.

He made friends with Shirley Sumner, the Colonel's niece, and declared his love during a free-for-all fight in Pennington's woods. After whipping her uncle's woods-boss for cutting down a tree in the Valley of the Giants, his father's grove of redwoods, he saved Shirley and the Colonel from a run-away train and then calmly told them he expected to fight them both for supremacy.

He fired old McTavish, his father's drunken woods-boss and installed Moira, his beautiful daughter, in the company office. And he is now discussing with old Cardigan how he can hide the fact that he is behind the building of the new logging railroad to parallel Pennington's and open up inaccessible timber property.

A School Holiday Program

Simple Patriotic Exercises for Children

SINCE Washington and Lincoln's birthdays come so close together, one New York State school took a Friday afternoon midway between the two events to present a patriotic program bearing on the lives of both great Americans. The program, a selection of short scenes, recitations, music and drills, cost practically nothing to put on, and gave every child in the school an opportunity to take part. It was staged on a platform without a curtain or scenery.

The course of events were as follows:

1. Singing of America. Whole School.
2. Tableau—Betsy Ross and Flag Makers. Posed from the familiar picture, by a group of girls. And at the same time:
3. Recitation—Flag Day Address—boy. (From Patriotic Pieces from the Great War. Penn Publishing Company, Philadelphia, Pa., 36 cents.)
4. Salute to the Flag—Whole School.
5. "George Washington's Fortune" (Patriotic Plays and Pageants, by Constance D'Arcy Mackay. Henry Holt, 19 West 44th St., $1.35.)
6. "Three Cheers for the Red, White and Blue." Whole School.
7. "Scenes from the Time of Lincoln." ("Little Plays from American History. A. J. Walker, Holt, $1.10. Four scenes, of which any one may be used separately; scene 2, has 1 woman and 2 little girls; scene 3, is good for a boy's class, taking 12 and 1 woman.)
8. Gettysburg Address — recitation for a boy.
9. Song of Civil War days—"Marching Through Georgia," or "Tenting on the Old Camp Ground."
10. Red Cross Drill—(Penn Publishing Company) for a leader and sixteen girls.
11. Star Spangled Banner. Whole school

In scenes requiring a cast, the participants assembled in the hall and marched in as their turn came. A screen between the door and the platform hid the entrances and exits for the little scenes.

For the George Washington scene, the necessary costumes were all provided by the actors, with the help of teacher or parents. Gymnasium bloomers, stocks and three-cornered hats gave the effect for the boys, while the girls wore modified Colonial styles, as directed in the play.

"Half an Hour with Washington," (Walter Baker, 5 Hamilton Pl. Boston, Mass., 16 cents,) is greatly inferior in context to the Mackay scene, but is perhaps easier to give. Washington himself visits a school, and any number may take part. Or the Washington material may be entirely omitted and "The Birth of a Nation's Flag," a playlet requiring 13 girls and 6 boys presented. (Walter Baker, 16 cents.)

If the school has a piano or if a phonograph can be borrowed, a little music while changing from one scene to another shortens the waits between numbers.—HANNAH PAINE.

IN THE PEANUT FIELDS

MILDRED STRIBLING RIBBLE

WHEN twilight brings the starlight, and all the world is still
The little Peanut People go trooping o'er the hill;
I think, perhaps, they're hand in hand, I know they're two by two,—
But isn't that the very way that other people do?

November frowns above them, but they do not heed her frown,
These little Peanut People in their sober coats of brown;
And so across the yellow fields they trot to take the view,—
(I never call them peanut shocks,—I call them Folks, don't you?)

IN PLANTING FRUIT PITS

Tell your reader who wishes to grow peaches, plums or cherries from the fruit pits to place the pits while fresh in a small hole in the ground, cover lightly with dirt, place over them a flat stone, leave them until spring, and then crack carefully those not already cracked by the frost and plant the meats carefully in a row in good fresh soil. She will not have any trouble about their growing.

Butternuts, walnuts and so forth should be planted where wanted, but all must be put in the ground before drying. I find no more trouble to grow them in this way than any other seeds.

Also in growing apple trees from the seeds, do not let the seed become dry, but plant as soon as the apple is cut. I have several apple trees now three years old which I started in with house plants.—Lizzie M. Rightmire, Wellsburg, N. Y.

The Valley of the Giants

(*Continued from page* 126)

the house and get my father to sign this deed."

A quarter of an hour later he returned with the deed duly signed, whereupon the Judge carelessly tossed his certified check for a hundred thousand dollars on Bryce's desk and departed whistling "Turkey in the Straw." Bryce reached for the telephone and called up Colonel Pennington.

"Bryce Cardigan speaking," he began, but the Colonel cut him short.

"My dear, impulsive young friend," he interrupted, "how often do you have to be told that I am not quite ready to buy that quarter-section?"

"Oh," Bryce retorted, "I merely called up to tell you that every dollar and every asset you have in the world, including your heart's blood, isn't sufficient to buy the Valley of the Giants from us now."

"Eh? What's that? Why?"

"Because, my dear, overcautious, and thoroughly unprincipled enemy, it was sold five minutes ago for the tidy sum of one hundred thousand dollars, and if you don't believe me, come over to my office and I'll let you feast your eyes on the certified check."

He could hear a distinct gasp. After an interval of five seconds, however, the Colonel recovered his poise. "I congratulate you," he purred. "I suppose I'll have to wait a little longer now, won't I? Well—patience is my middle name. *Au revoir.*"

The Colonel hung up. His hard face was ashen with rage, and he stared at a calendar on the wall with his cold, phidian stare. However, he was not without a generous stock of optimism. "Somebody has learned of the low state of the Cardigan fortune." he mused, "and taken advantage of it. They're figuring on selling to me at a neat profit. And I certainly did overplay my hand last night. However, there's nothing to do now except sit tight and wait for the new owner's next move."

Meanwhile, in the general office of the Cardigan Redwood Lumber Company, joy was rampant. Bryce Cardigan was doing a buck and wing dance around the room, while Moira McTavish watched him, in her eyes a tremendous joy and a sweet, yearning glow of adoration that Bryce was too happy and excited to notice.

Suddenly he paused before her. "Moira, you're a lucky girl," he declared. "I thought this morning you were going back to a kitchen in a logging-camp. It almost broke my heart to think of fate's swindling you like that." He put his arm around her and gave her a brotherly hug. "It's autumn in the woods, Moira, and all the underbrush is golden."

She smiled, though it was winter in her heart.

(*Continued next week*)

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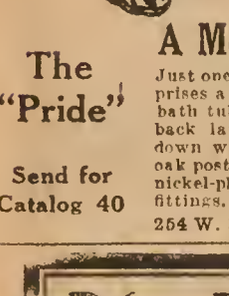

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ELIZABETH RADWAY

It does not always take expensive playthings to keep children amused and happy. They will play for hours with a bowl of thorn apples and a handful of toothpicks. They can make many different queer animals and fantastic objects of whirligigs with them.

Then there is paraffine. A lump of that as large as an egg and warmed so that it is pliable will amuse many children. They can model animals or birds or make marbles with it. They can model fruit or furniture. Paraffine which has been used on fruit or jelly will do just as well as new.

In season, horse chestnuts, gathered and stored and brought forth as a surprise, will work wonders with a child who doesn't know what to do. They can be rolled on the floor, poured from dish to dish to hear the rattle, or hidden by mother and found by the youngsters.

A box of cards, saved from time to time, is a good thing to amuse most children. These cards can be cut from raisin boxes, cocoanut boxes, butter cartons and everywhere a bright, pretty picture is found that would otherwise be wasted.

Last, but not least, there is helping mother or father. Many steps can be saved the parent by the child and all small children, if asked and thanked, like to carry kindling-wood and chips or to do other small chores.

HEART-SHAPED COOKIES FOR VALENTINE'S DAY

For these cookies you may use your favorite cookie recipe, or the following:

Sour Cream Cookies

One-half cupful butter, ½ cupful sour cream, 1 cupful sugar, ¼ teaspoonful soda, 1 tablespoonful baking powder, ½ teaspoonful salt, ½ teaspoon vanilla, 1 egg, red sugar to sprinkle tops.

Cream the butter, add the sugar gradually, the well-beaten egg and the vanilla. The flour, mixed and sifted with the baking powder and salt, is added alternately with the sour cream in which the soda has been dissolved. Roll the dough thinly and cut with a heart-shaped cutter. If you have no cutter of this shape make a paper pattern a little larger than you wish the cookies to be, as the dough shrinks in baking. Place this on your dough and cut around the pattern with a pointed knife, repeating until the dough is used. Sprinkle each cookie with red sugar and place in a pan lightly dredged with flour to bake until the cut edges are a delicate brown. To color sugar use the coarse granulated kind. Pour a few drops of red color—cochineal, or the coal-tar dye that is bought at the stores—on the sugar, rubbing with a spoon until evenly colored. Dry with a very moderate heat. These novel cookies are much admired at a Valentine tea or party, and a box of them in a gay box or basket is a welcomed gift.—Etta Boies Rankin.

NUTS GOOD AND CHEAP FOOD

Nuts are valuable food, say the specialists at the School of Home Economics at Cornell. They are cheap when it is considered that they are a concentrated food, high in protein and fat, and a valuable source of energy.

Contrary to the usual idea, nuts are easily and fairly completely digested if well masticated and eaten as a part of the regular meal, not after or between complete meals.

Most nuts are edible raw, except the chestnut, which contains so much starch that cooking is desirable. The flavor of almonds and peanuts is improved by roasting.

On account of their high protein value, nuts may be used as the main dish. A salad may be made a principal dish by the addition of nuts.

Peanut loaf is a satifactory meat substitute. A recipe follows: 1 cup ground peanuts, 1 cup bread crumbs, 2 cups boiled rice, ½ cup tomatoes, 1 egg, 2 tablespoons chopped onion, salt, pepper, mix, mold into a loaf, and bake 30 minutes.

I received the dress and bathrobe, and am very much pleased with them, so I am going to order two more bathrobes. I hope these will be just as pretty as the one I just received.—Mrs. C. G., New Jersey.

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Comin' Through the Rye
My Old Kentucky Home
Old Folks at Home
Home, Sweet Home
Sweet and Low
Lullaby (Erminie)
Nearer My God To Thee
Annie Laurie
Last Rose of Summer
Schubert's Serenade

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The Care of the Feet

Our Medical Editor Gives Expert Advice

AT this season of the year the feet take on an added importance because of the rôle they play when not properly protected, in bringing about colds and influenzal troubles, to say nothing of pneumonia.

The circulation throughout the lower extremities must be maintained with suitable, warm, dry footwear and exercise; this must be your first consideration, otherwise the lack of warm blood circulating freely through the parts directly results in cold feet.

Footwear is an item of clothing rarely regarded with the respect due it. When the feet and ankles are kept warm and dry, withal comfortable, cold has no terrors. Everyone can best judge for himself the most suitable kind of hose. Some of you take great comfort in home-made woolen hose, while others are irritated and annoyed by them. However, as long as stockings are protective, and heavy-soled shoes are worn, the actual quality is not specially important.

Many of my readers suffer from cold hands and feet in winter, and usually disregard the conditions. Nothing is more foolhardy. There would be fewer cases of severe illness if these little warnings of nature were looked into. Cold extremities are, as a rule, caused by impoverishment of the blood, plus feeble circulation. That sounds like anemia, does it not?

And it is very true that almost everyone troubled with cold hands and feet is anemic. Not everyone, as the condition is sometimes wholly a nervous one, but then it is not constant, it comes and goes, whereas, the condition to which I particularly refer is more or less permanent. Even when of nervous origin the blood lacks the spark.

Speaking of cold feet and anemia compels me to say a word to those of you who dislike cold weather and hug the fireside in consequence. I assure you it is a bad combination, because the carbon dioxide gas from coal fires vitiates the atmosphere and further impoverishes the blood. It also invites other troubles, which I shall not enter into here.

You can improve and entirely overcome this condition by breathing fresh, pure air all the time, by exercising and including in your diet such foods as increase the warmth of the body; namely, olive oil, pork, an abundance of milk, rare beef, butter, whole wheat flours.

Coldness of the feet which persists for hours after coming indoors, requires local treatment. You should never retire when the extremities are so chilled that hours of wakefulness result. Plunge the feet alternately into cold, then hot water, and dry briskly with a Turkish towel until the skin tingles.

Before retiring, rub them briskly with oil or spirits of turpentine, which imparts warmth and is likewise conducive to sleep. After the turpentine rub, the feet and ankles may be wrapped in a woolen garment to retain the heat and the turpentine fumes.

Simple treatment, is it not? But highly effective, as you can prove by trying it. Those susceptible to colds should take every precaution against them, for repeated attacks of coryza (cold in the head) and of bronchial coughs are the forerunners of more serious troubles.

Damp clothing, especially damp shoes and stockings, should always be removed immediately on entering the house, and the feet dried briskly with coarse towels, before getting into dry shoes and stockings.

When the feet have been exposed for any length of time to severe cold and dampness, a possible chill can be averted with a hot mustard footbath. Many severe troubles are the direct results of improperly fitting footwear. I have written volumes on this subject, and yet my readers will wear any kind of a shoe that happens to be handy! Children are forced to wear adults' shoes in many instances, to my knowledge, and many women work in the fields, with men's shoes on for hours.

The feet are the most patient, long-suffering, willing members of the body and possibly the most abused. Have you ever stopped to consider how much more efficient you would be and how much better you would feel if you gave your feet the consideration they merit?

From the feet to the brain and spirit is a far cry, yet the intimate connection between them is so true that in case of weary, fatigued feet and those crippled with slight deformities, the brain is apt to be sluggish and the spirits depressed. It is impossible to maintain proper bodily pose if the feet are not correct anatomically; if, in other words, they are not properly shod. Broken-down arches, weak ankles, hammer toes, joint deformities and such lesser evils as corns, bunions, etc., all result from faulty footwear, and all create so much physical pain that mental anguish is a foregone conclusion.

I will have more to say on all these matters in future articles, but cannot close this one without a reference to frost-bite and chilblains, so common at this season of the year. Contrary to popular belief, chilblains are much more apt to occur when the weather is penetratingly damp and chilly, than when it is severely cold but dry. Of course, prolonged exposure to zero weather often results in frost-bite.

A person suffering from this trouble should never be taken close to a fire, steam radiator or heating apparatus of any kind. For mild conditions of frost-bite plunge the affected member in warm water. Friction with oil of turpentine or camphorated vaseline is good. It is most important to reestablish the circulation with all possible speed to counteract the effect of cold, so that serious chilblains—which mean destruction of the affected tissues—will not result.

When the condition has developed, the following is a good liniment:

Soap liniment.....	2 ounces
Spirits of camphor.....	2 ounces
Tincture of cantharides.	2 ounces

Saturate lint with this mixture and hind on the parts.—(DR. CHARLOTTE C. WEST.

INTRODUCING DR. CHARLOTTE C. WEST

American Agriculturist is fortunate to have secured as consulting physician Charlotte C. West, whose skillful and friendly handling of medical questions by mail has made her one of the best-known women doctors in the country.

Dr. West will contribute a monthly article; she will also answer readers' letters, giving any possible advice that can safely be attempted by mail. There is no charge for this service, but readers are asked to enclose a stamped, self-addressed envelope in asking her help.

Address letters to Dr. Charlotte C. West, care of American Agriculturist, 461 Fourth Avenue, N. Y. C.

CURING OF MEATS

I. D. W. ALLEN

Of all the recipes that I have used in curing meats, I like the following best, because of the ease with which it can be done, and the fine rich flavor that it gives. We treat our hams and bacon the same way. To a cupful of salt, add a teaspoonful of finely pulverized saltpeter and dampen the whole thoroughly with heavy, dark New Orleans molasses. After the meat has cooled and ripened for a few days, rub all the above mixture into the meat that is possible. Let stand for a few days, or until the salt is all absorbed, and then repeat with the same mixture. After four or five days, smoke with corn cobs and you will have sweet, rich meat.

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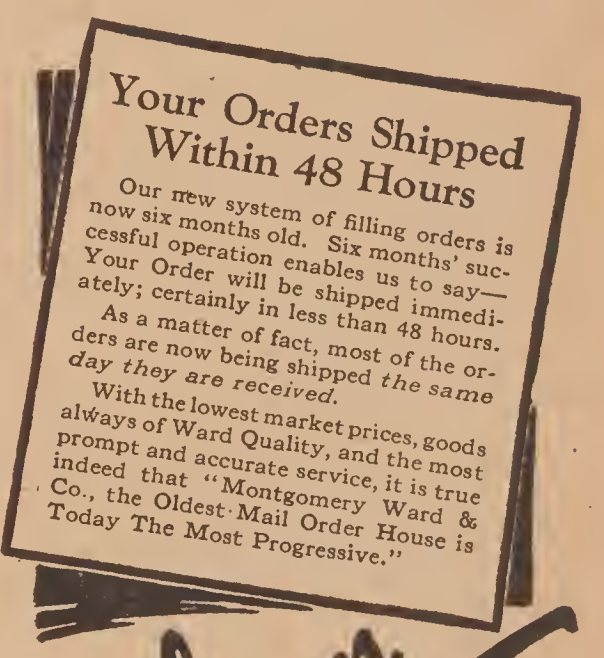

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HOLSTEINS

Reviewing the Latest Eastern Markets

CAR SHORTAGE HELPS POTATO MARKET

POTATOES were in demand early last week due to car shortage. This condition was quickly corrected and the market turned decidedly weaker.

"States" sold in the railroad yards from the cars at $2 @ 2.25 per 150-lb. sack depending on quality. Shippers were offering bulk at $1.30 @ 1.40 cwt. delivered New York.

"Long Islands" continued firm. Farmers on North Side were hauling for from 80 @ 85c per bushel; on the South Side from 90 @ 95c, a few $1.

ONION MARKET QUIET

Receipts of onions from State sections are of poor quality and the market tends lower, temporarily at least. Demand is more quiet. New York State shipments to date are far below last year to same date. Ohio and Indiana have shipped over twice as much as last year. Central and Western N. Y., yellow, No. 1 best sold at $2.65@ 2.75 per 100-pound bag, a few fancy at $2.85 @ 2.90. Orange Co. yellows best, $2.50 @ 2.75.

Inquiries from California last week indicated fear of shortage of onions there, so that Pacific Coast shipments may not come into competition with Eastern onions this year as last.

CABBAGE MARKET FIRM

Cabbage holds steady at good prices. Some Danish variety State cabbage brought as high as $35 per ton at New York. Shippers paid farmers as high as $20 @ 24 per ton, but generally under $20. Total carlot shipments of old cabbage this season are nearly 6,000 cars ahead of entire season last year. New Florida and Texas shipments are about one-third those to date last year.

FANCY APPLES IN DEMAND

Receipts of barreled apples continued fairly liberal last week and there was prompt sale for best qualities. No improvement in market for ordinary stock.

Wholesale prices per barrel A grade 2½-inch, were as follows:

Variety	Best	Fancy	Ordinary
Baldwins	$4.50@4.75	$5	$4 @4.25
Greenings	4.50@4.75	5	4 @4.25
McIntosh	8 @9	9.50@11	6.50@7.50
N. Spy	6 @6.50	....	4.50@5.50

EGG MARKET BREAKS AGAIN

The mild weather and increasing receipts caused wholesale egg prices to drop sharply again last week. The top quotation on New Jersey hennery whites uncandled, extras February 1, was 48 @ 50c compared with 55 @ 57c a week previous. Other nearby hennery white extras, were down to 47c, as compared with 52 @ 53c the week previous. Nearby gathered whites shipped by country collectors ranged from 43 @ 46c, compared with 47 @ 51c a week before. Pullets are improving in quality and have declined less.

The express shipments from nearby sections continue to show a wide variety in quality, size and color. Nearby producers are often dissatisfied with prices obtained on mixed qualities, although their returns are as much as the market affords. Where it is impossible for a shipper to sort his eggs thoroughly in case lots, it is desirable to separate the different qualities in each case. At least two grades should be made. All the uniformly large eggs, including no eggs weighing less than 2 ounces, uniformly chalk-white and free from stains and bloodspots, should be put together. Any cream tinted eggs and undersized should go in with pullets. The very small eggs, commonly called "pewees" in the market, should be kept at home or shipped separately. It does not pay to try to "face up" cases of eggs with a layer of large eggs on top. Buyers always examine two or three layers in a case and if they find the top layer is not representative of the rest of the case, they are likely to be suspicious and unwilling to bother with making a further examination. Express shippers should always put a slip inside the case, listing the number of different classes of eggs in the case. Wherever possible, it is desirable to pool neighborhood shipments so as to make up case lots of uniform size, color and quality.

ACTIVE DEMAND FOR CAPONS

Although there has been a liberal supply of dressed capons from middle-western sections, the demand for them is active. Nearby shipments, 8 to 9 pounds, sack weight, bring 40 @ 45c per pound dressed; 5 to 7 pounds weight bring 32 @ 40c per pound; full slips and poor 28 @ 31c. Capons should be graded closely as to size to bring outside quotations.

Turkeys are selling well at steady prices. There are few nearby dressed chickens in the market, but receipts are heavy from the West. Fowls in moderate supply and market steady.

BUTTER CONTINUES TO DECLINE

Wholesale quotations on all grades of butter at New York continued to decline, showing a total drop of 2½c in the week ending February 1. The outlet has been too slow to absorb excessive supplies of fresh goods.

Stocks on hand in the wholesale market caused buyers to hold off and prices to drop. Retail prices have not come down sufficiently to increase consumption. Most of the big chain stores are now retailing fine quality creamery butter at 55 @ 57c, but smaller grocers and delicatessen shops charge considerably more. Wholesale prices are still about 9 cents higher than a year ago. There is comparatively little storage stock to fall back on, but the production of fresh butter is larger.

The outlook for cheese is for a gradual decline. Average run, whole milk flats, held, sold at 28 @ 28½c lb.

HAY INVOICES LIGHTER

Although the 33rd Street market was flooded with hay shipments last week, it is reported that invoices are lighter. No permits for shipments here are being issued by the New York Central yet. Brooklyn terminals have been no better than Manhattan, but are beginning to clean up. Firm outlook for rye straw. A boat shipment of California alfalfa is reported on the way here.

DRESSED CALVES IN DEMAND

In spite of heavy receipts the market for country dressed calves held steady last week, because of active demand. On February 1, best country dressed calves sold at 20 @ 21c, lower grades 14 @ 19c. Hot-house lambs brought $14 @ 15 each. Practically no country dressed pigs or beef coming now, owing to difficulty of complying with City Health Department regulations. The demand for hot-house lambs is strong, but very slow for dressed pigs.

LIVE STOCK LOWER EXCEPT LAMBS

Live calves, steers, bulls and cows were in heavy receipt last week and prices tended a little lower. Lambs, however, held steady with a strong demand at $15.50 per cwt. for primes. Most of the lambs now are coming from the West, the New York season being about over. On February 1, top price on calves was around 15c per lb., on steers, 9c per lb., bulls, common to good, $2.50 @ 3.95 per cwt.; cows, a few choice at $5.20 per cwt., common $1.50. Receipts of cows and bulls were especially heavy

MILL FEEDS AND OIL MEAL LOWER

Oil meal in the Buffalo market declined another 50c per ton last week and, cottonseed meal, 43 per cent dropped 25c. Bran and spring middlings were $1 ton lower and choice flour middlings 50c lower. White hominy also dropped $1 per ton.

Quotations at Buffalo, carlots f. o. b. in 100-lb. sacks, January 31, were: Gluten feed, $46.55@47; Cottonseed meal 36%, $48@48.50; Cottonseed meal 43%, $53.75@54.25; Oilmeal 33% to 34% local billed, $51.50@52; Dried brewers' grains (nominal), $49@50; Standard spring bran, $32@32.25; Hard winter bran, $32.75 @ 33; Standard spring middlings, $32.75@33; Choice flour middlings, $35.25@35.75; White hominy, $34.80@35.30.

Buffalo prices on feed grains showed few changes. Oats were down 1c bushel and rye was ¼c lower.

CASH GRAIN PRICES CHANGE

Quotations on cash grains both at New York and Chicago show numerous small changes since last weeks' review. Fear that war may result from the European situation sent prices up on January 31, but the nervousness of the market left the prospect very uncertain as to future trend. Prices on February 1, follow:

At New York — No. 2 red wheat $1.31¼ bu; No. 2 hard winter $1.27¼; No. 2 yellow corn 90c; No. 2 mixed corn 89½c; No. 2 white oats 55c; No. 3 white oats 53½c; rye for export 99¾c; barley malting 77@79c; buckwheat $1.93@2.20. At Chicago—No. 2 yellow corn 71¾@72¾c; No. 2 white oats 43½@44¾c; barley 58@67c; rye 87c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on February 2:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	48@50	......	......
Other hennery whites, extras	47	44@46	......
Extra firsts	45@46	......	......
Firsts	43@44	......	......
Gathered, whites, first to extra firsts	43@46	......	......
Lower grades	41@42	......	......
Hennery browns, extras	42@44	......	......
Gathered browns and mixed colors, extra fancy	38@41	42@43	37
Pullets No. 1	39@40	41@42	......
Butter (cents per pound)			
Creamery (salted) high score	47½@48	52@53	......
Extra (92 score)	47	50@51	......
State dairy (salted), fine to fancy	44 @46	48@49	......
Good to prime	37 @43	42@47	......
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$21@22	......	......
Timothy No. 3	19@20	......	......
U. S. Sample	15@17	......	......
Fancy light clover mixed	22@23	......	......
Oat straw No. 1	16@17	......	......
Rye straw No. 1	24@25	......	......
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	27@28	26@28	24@30
Fowls, leghorns, fancy, heavy	20@22	20@22	26@28
Chickens, colored, fancy, heavy	21@22	18@23	26@27
Roosters	14	17@18	......
Live Stock (cents per pound)			
Calves, good to medium	13 @14	12 @15	......
Bulls, common to good	2½@ 4	4½@ 5½	......
Lambs, common to good	9 @11½	15¼@15½	......
Sheep, common to good ewes	3½@ 5½	6@ 8½	......
Hogs, Yorkers	9¼@ 9½	9 @ 9¼	......

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CHICKS from heavy laying flocks that are true to name in Orpingtons, Wyandottes, Rocks, Leghorns, Anconas, Minorcas, and Reds. A REAL HATCHERY—not jobbers. We sell only our own hatched Chicks. Send your name for descriptive printed matter and right prices. Postpaid. 100% live delivery guaranteed. Bank reference.

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PORAY'S CHICKS

Can furnish Pure Bred S. C. White Leghorns from Heavy Egg Layers, headed by Certified cockerels. Pedigreed chicks from Certified stock, also eight-week old pullets and up.

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Barron English Large Type S. C. White Leghorns. Large, pure-bred, Hogan-tested, red-combed, pepful birds on free range, healthy and vigorous. All pens headed by Lady Storrs' Pen Cockerels (Dams records 240 to 271 eggs each). Chicks from these matings $20 per 100, $95 per 500, $180 per 1000. Special delivery parcel post prepaid, 100% live delivery guaranteed. 10 per cent books order for any week after Feb. 12.

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$10.50 PER 100 AND UP. From Hogan tested, well-kept, heavy laying flocks. Wh., Br., and Buff Leghorns, 50, $7; 100, $13; 500, $62.50. Bar. Rocks, Anconas, 50, $7.50; 100, $14; 500, $67.50. Reds, Wh. Rocks, Minorcas, 50, $8; 100, $15; 500, $72.50. Buff Orpingtons, Wh. Wyandottes, 50, $9; 100, $17; 500, $82.50. Mixed, 100, $11; 500, $52.50. Postpaid and full live delivery guaranteed. Order right from this ad. ALSO EGGS FOR HATCHING. Free Catalog. Ref. 4 Banks. Only 18 hours to New York City.

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White and Brown Leghorns	$13.00	$7.00	$3.75
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Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.

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CHICKS WITH PEP, $11. Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off. Ready February 26th. Free catalog. Member I. B. C. A.

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BEST BREEDS Lowest Prices. Hatched by experts with 12 years' experience. Satisfied customers everywhere. 100 per cent. live delivery guaranteed. Catalogue Free.

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Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
S. C. White, Brown, Buff Leghorns	$15	$72	$140
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For breeding, we select only the kind of heavy egg-producers we want our chicks to grow into. Other factors enter into our choice of the parent birds, of course, but the prime test is ABILITY TO LAY.

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25 Chicks $13.50 50 Chicks $26.00 100 Chicks $50.00
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Write for free catalog with interesting article by Prof. James E. Rice of Cornell University. Tells about the Association. Contains list of 254 Members and Breeders of 9 Varieties of Poultry. Address

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Chicks $12 Up

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PRICES—White, Brown & Buff Leghorns, 50, $7; 100, $13; 500, $60. Barred Rocks, S. C. & R. C. Reds, Anconas, B. Minorcas, 50, $8; 100, $15; 500, $70. White Wyandottes, White Rocks & Buff Orpingtons, Sheppards 331 egg strain Anconas, White Minorcas: 50, $8.50; 100, $16; 500, $75; mixed, 50, $6; 100, $11; 500, $50. Hatched from selected heavy laying flocks that are well fed and cared for, insuring strong, livable chicks that will make a profit for you. POSTPAID TO YOUR DOOR. ORDER DIRECT FROM THIS AD AND SAVE TIME. Catalog free. Reference, Geneva Bank.

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The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, growthy Chicks which will mean PROFIT to my customers. **PRICES: WHITE, BROWN & BUFF LEGHORNS, 50, $7.; 100, $13.; 500, $62.50. BARRED ROCKS, R. & S. C. REDS & ANCONAS, 50, $8.; 100, $15.; 500, $72.50. WHITE & BUFF ROCKS, WHITE WYANDOTTES, & B. MINORCAS, 50, $8.50; 100, $16.; 500, $77.50. WHITE & BUFF ORPINGTONS, SIL. L. WYANDOTTES, 50, $9.; 100, $18.; 500, $87.50.** I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them.

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Full 100% live arrival guaranteed. Postpaid. Personally inspected and hatched from STATE INSPECTED Flocks. PURE TOM BARRON STRAIN WHITE LEGHORNS, 50, $8.50; 100, $16; 500, $77.50; 1,000, $150. HEAVY LAYING BROWN LEGHORNS, 50, $8; 100, $15; 500, $72.50; 1,000, $140. SELECT ANCONAS, 50, $9; 100, $17; 500, $82.50; 1,000, $160.

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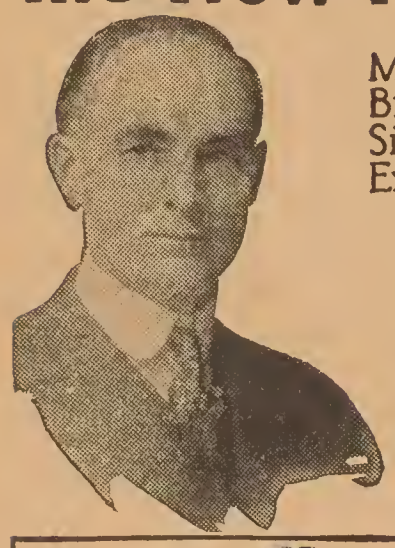

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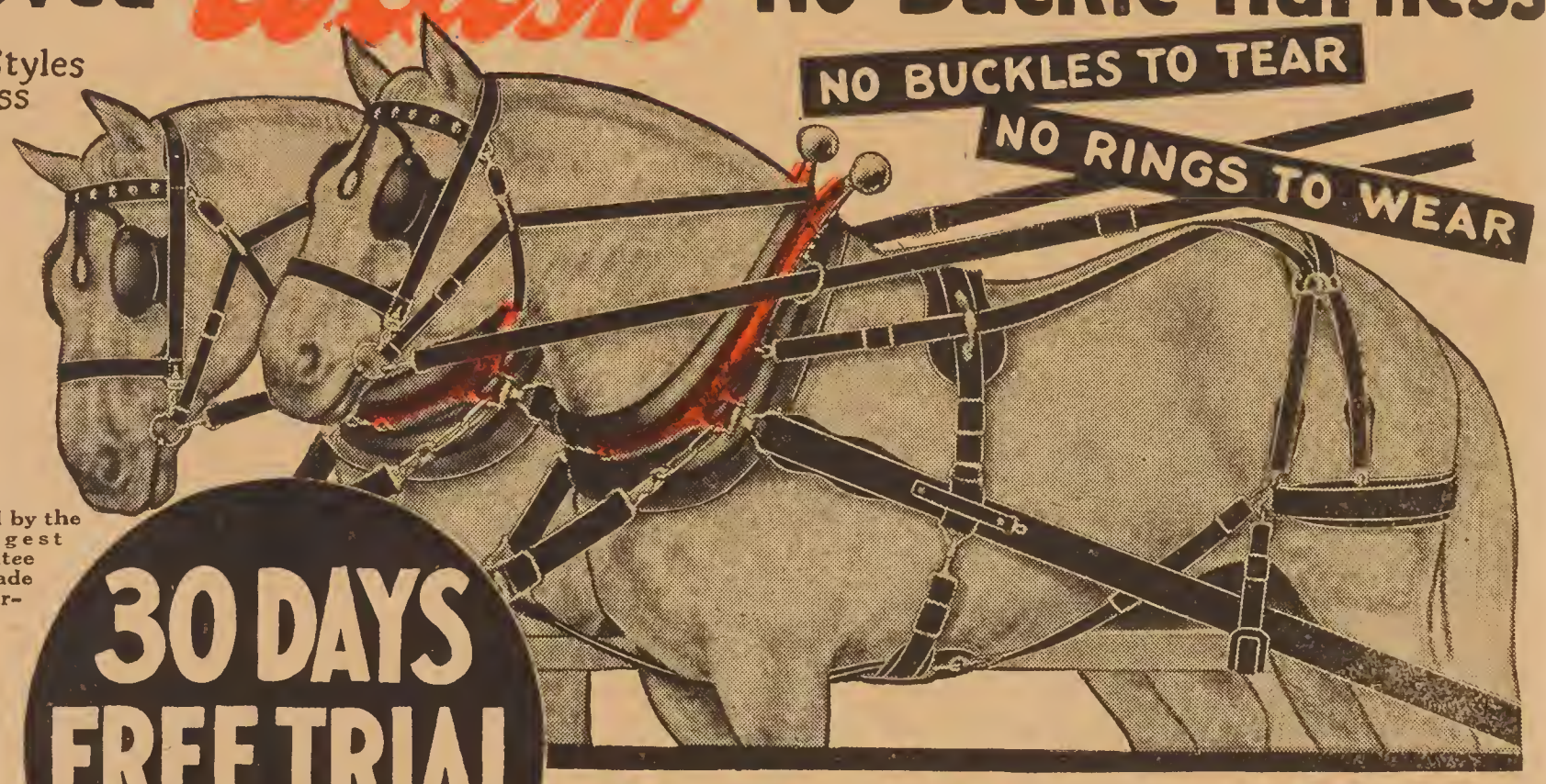
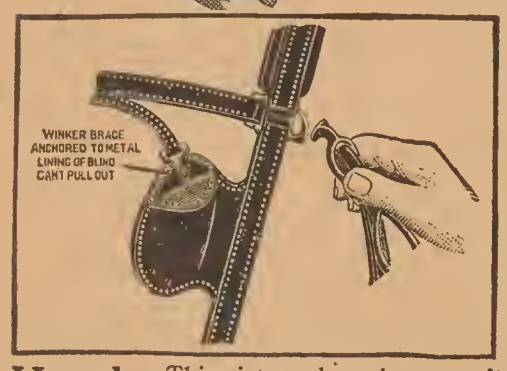
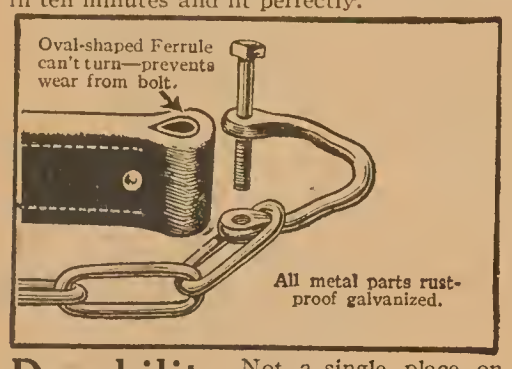
JAMES M. WALSH





Handy This picture shows how easy it is to hitch and unhitch. All parts just as simple as this.

Easy Adjustments Walsh Harness can be adjusted from large team to small team in ten minutes and fit perfectly.



Durability Not a single place on Walsh Harness for metal to rub and wear leather.

Quality Only strongest part of hide is used. High-grade, bark-tanned, packers' Northern steer hide leather.

Strength From photograph of an actual test made for U. S. Army Officers. One of our regular Walsh side straps holding seven men in air, and the Walsh strap holder did not slip a fraction of an inch. The same strap with buckle in it broke with three men. Get Free Book for complete details.

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The average cost of repairs per year is only 9 cents

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Post yourself on this new way of making harness which has three times the strength of buckle harness. Let me send you a set of Walsh No-Buckle Harness on thirty days' free trial, just as thousands in every state in the Union have done. Let me show you how harness can be made three times stronger without buckles—how much better looking and how much handier in every way. Try a Walsh on your team 30 days. Send no Money. If it is not all that I claim, send it back at my expense. No obligation on your part. Write for the free book today.

Costs Less—Lasts Twice as Long

This wide-open, liberal offer shows that the Walsh must be an exceptionally good harness. If I did not know positively that Walsh Harness is better in every way than buckle harness, I could not make such an offer. In addition to having harness in the hands of thousands of users the country over for years past, I have tested and proven in various ways that my harness is better and stronger, hence cheaper by far than any other harness. I prove conclusively in my new harness book, which I am waiting to send you, that Walsh No-Buckle Harness will positively last twice as long as buckle harness.

Greatest Advance in Harness Making

Not only is the Walsh No-Buckle Harness stronger, but it is easier to put on and take off. It is also better-looking, handier, and eliminates frequent repairs. Has better fitting hames, adjustable strap holder—the harder the pull, the tighter it holds—renewable spring snaps and many other advantages explained in my free book. The Walsh is easily adjusted to fit any horse perfectly. And remember that Walsh Harness actually costs less than buckle harness because it does away with repair expense, and lasts longer.

The World's Strongest Harness

Users say the leather in Walsh Harness is the best they ever saw in harness. It is old-fashioned, bark-tanned, packers' Northern steer hide leather. A test made in a scientific laboratory proved that a Walsh 1⅛ inch breeching strap holds over 1100 pounds. The same strap with buckle in it breaks at about 350 pounds pull. When you consider that ordinary harness has 68 buckles, and Walsh Harness none, you'll understand why my harness does away with repairs and outwears two sets of buckle harness.

Friction Another Destroyer of Harness

Rings are another thing that makes harness wear out before it should. Examine your old harness and you'll find where rings have worn the straps at the ends. There are 270 places on an ordinary buckle harness where ring friction wears the straps in two. Walsh Harness has no rings to wear straps in two. Many other advantages are explained in the free book. Write for it today.

What Users Say

Government Experiment Stations, Agricultural Colleges are among the thousands of users in every state who praise the Walsh Harness. Walsh Harness took First Prize at Wisconsin State Fair in 1921 and 1922.

Mr. G. G. Anderson, Aiken, Minn., bought his first Walsh Harness five years ago and bought three more sets since for his other teams. He says: "Walsh has buckle harness beat a mile."

Mr. E. E. Ward, Seneca Falls, Wis., says: "Have used Harness over 40 years. The Walsh is the best yet."

Mr. J. W. Rogers, R. No. 4, Baldwinsville, N. Y., says: "Have used it skidding logs and that is giving it a hard test. I think enough of it that I will order another set in the Spring."

$5.00 After 30 Days' Free Trial

Balance easy payments or pay cash after trial if you wish. Selling direct from the factory to you enables me to give the highest quality of harness possible to make at lowest prices. You can get a Walsh Harness in any style—Breechingless, Back-Pad, Express, etc. Easily adjusted to fit any horse perfectly.

Write Today. My free harness book will give you many wonderfully interesting facts and valuable information on harness—tells all about the Walsh No-Buckle Harness—what hundreds of farmers think about it. We have a plan whereby you can make money showing Walsh Harness to your neighbors. There's a copy ready for you—Write Today.

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4-23

VOL. 111 Founded 1842 No. 7

AMERICAN AGRICULTURIST

$1.00 A YEAR February 17, 1923 5 CENTS A WEEK

The Ax Followed by the Plow Conquered America

The March of Events in the Ruhr—By J. G. McDonald

Shall We Urge Our Boys To Be Farmers?

Or Is It Best To Let Them Choose Their Own Vocation and Then Guide Them?

WHY should we? It is a big thing to be the backbone of the world. And that is the place a farmer holds, standing second to none, unless it is to the minister and to the doctor—but the three are so kindred in importance that it is hard to give a prominence to one over the others. Our ministers can teach us peace and happiness; our doctors can teach us such care of our physical beings that we can get the maximum efficiency out of them; but, even with well minds and well bodies, none could live without sustenance.

Keenly do we realize the importance of our job when we learn of the backwardness in every way, and of the hardships of their people, of the countries in which agriculture has not been developed.

To be a successful farmer in these days takes an intelligent man. There are few occupations in which a man must know so many different lines. We do not often think of just the breadth this covers, and surely it never has been impressed upon our boys and girls.

The present-day farmer must understand not only kinds of soils and their adaptability, but how to change the composition that certain profitable plant life thereby will do better; he must understand animals, from their diseases to the food they need to give the best paying results; he must be a mechanic and a good repair man; he should make himself into a scholar, that he may understand better and put to good use the knowledge which his government goes to great effort to obtain for him. This is only a smattering of the maze of things he must know. We always have realized that farm work develops the best in man physically, but we have not realized that it is a great business in which to bring out the best in man mentally—if the man will let it.

Where a Man is a Cog in a Wheel

Recently it was my good fortune to go through one of the largest manufacturing plants in the world. That visit gave me serious thoughts. I would be sorry to see a farm boy, particularly one who would have to follow the general routine of the work, go into such a place to work—and I know several who think if they could get into that particular shop to work, it would be the making of them.

The final accomplishments growing out of a system where not a second of time or an atom of man's energy are wasted are overwhelming, but the men's individual work, with the exception of the few who might win promotion, is cramping to their personalities and abilities. They were doing the same little thing — perhaps it was driving a half dozen nails or dropping a half dozen drops of solder — over and over, hundreds of times a day for hundreds of days, over and over! They did not have the satisfaction of creating an article—only one tiniest part of it. What does a job like that bring out of a man in comparison with what farming might.

We might be urging an actual hardship upon them. The present financial conditions are precarious. Though it is a sure fact that farmers never again will allow themselves to be trodden under the feet of people of other occupations. They will have more and more to say about their own business affairs.

But the biggest reason why we have no business to urge our boys to be farmers is, that it is their right to choose for life the work they like best. If it is farming, encourage them in it. If it is something else, then be patient, encouraging and understanding. With some children it is easy to see their inclinations toward the work in which they will make the greatest success. It is the best-liked work that will bring a full measure of usefulness and happiness to the individual and to the world.—MRS. ELIZABETH M. HOAG, Oneida Co., N. Y.

A Farm Boy Who Decided Later— And Made Good

"FATHER, what will you give me a month to come home and help farm?"

"John, I will not give you anything. In the first place, this farm isn't paying. There is some debt against it now, and there isn't enough coming in to meet expenses; besides, you will make a better business man than you will a farmer, and you won't have to work so hard."

Ephriam Burket was a good man, a kind father, and an active citizen. He had raised his family well, had helped to start a grange thirty years before, had built a room in which it met, and was an active man in community affairs all his life. He really felt that he was giving his son good advice.

His son, John W. Burket, about whom this story is built, had gone to Philadelphia, received a business education, and was ready to enter into a partnership which promised at least moderate success. His prospects in the business world were not only alluring, but promising. In some way, however, the call of the home farm brought him back to Sinking Valley, a beautiful three-cornered limestone section in which a hundred limestone farms were settled before the nineteenth century.

A Case of "Before and After"

There had been a hundred years of farming on the broad acres owned by Ephriam Burket. Hay and grain had been sold year after year. As long as a field would yield a good hay crop, it was left standing. Although the farm was naturally one of the best in the valley, corn would yield only 75 bushels or less of ears to the acre. It was a fairly good yield when wheat yielded 15 bushels per acre.

That the yields now average over 135 bushels of ear corn to the acre and 30 bushels of wheat is ample testimony to the ability of John Burket as a farmer and to his wisdom in returning to the farm. As to profits on the farm, Mr. Burket says he never expects to be wealthy, but he also says that there is not a year of the last twenty-five that has left him with a loss. The season of 1921, when very few farmers made any money, and when a great many lost heavily, came nearest to robbing him of profits.

"Good live stock and good line fences" were the two aims Mr. Burket held before him when he took over the home farm. The first pure-bred stock secured was four Shropshire ewes and a ram from the A. J. Cassatt farm, near Philadelphia. Ever since that time his farm has been known as the best source of Shropshires in Blair County. He has maintained rather uniformly a flock of twenty-two ewes. Medium and poor individuals are culled out; breeding rams are kept until two years of age, because Mr. Burket realizes that both his reputation and the performance of the rams are at stake, and he prefers that both the purchaser and himself be assured of satisfaction. Incidentally, his wool has been sold at a premium, because it is always clean and of good quality.

Has No Use for Tractor

"I have no use for a tractor," says Mr. Burket. The reason may lie partly in the quality of his horses. In 1908 he got his first Percheron, and since that time has never been without some registered horses. His best crop, however, he considers his Berkshire hogs. It was 1912 before he got into registered hogs, but since that time they have been a stand-by. He has them because they produce pork. A few animals have been sold as breeders, but the chief aim is pounds of pork. From that standpoint good blood has been a paying proposition.

A factor that has contributed largely to Mr. Burket's success is his inherent desire for knowledge and his willingness to accept that which promises to help him. He feels that the State College is a very large factor in his success. About fifteen years ago he heard Professor M. S. McDowell give a discussion on the famous fertilizer plots at State College. The next fall he attended the Pennsylvania Farmers' Week at the college, especially to study those fertilizer plots.

Neighboring farmers were convinced that acid phosphate "soured the ground." The fertilizer plots, however, proved to him that 16% acid phosphate was absolutely necessary to profitable crop growing. He came home and has used that "souring" material since. While at college he inspected their corn, which was better than he was then growing, and he said to himself: "John, you'll do well if you ever raise corn like that."

(*Continued on p.* 142)

It Won't Be Long Before the Cows Will Be Back in the Pasture

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending February 17, 1923** **Number 7**

The March of Events in the Ruhr

The Eyes of Europe and America are Anxiously Fixed on This Little Valley

By J. G. McDONALD

WHAT is the Ruhr? It is simply the valley of a small tributary river of the Rhine. This valley contains about three-fourths of the producing coal mines of Germany and a vast proportion of the German iron and steel mines. The Ruhr is, in fact, the heart of what might be called the German factory, for Germany in the last forty or fifty years has developed into a highly organized and industrialized state, of which the natural resources of the Ruhr and its vast manufactures form the central and most vital part.

What has France done in the Ruhr? Nominally, she simply took over the mines and railways with her engineers, adding only a sufficient military force to protect the engineers. Our State Department recently expressed surprise when anything else happened. They must have known, as the rest of the world knew, that this talk of occupation merely as an engineering enterprise was absurd, and that it would inevitably develop into a military enterprise, as it now has. Instead of the 25,000 troops which France first had there, 100,000 are now involved in an invasion and a military occupation of the very center of Germany's industrial life.

The question of the Ruhr is important not only from the point of view of the Ruhr itself and what it involves, but also because France's actions there may mean very serious things for Germany, for France itself and indirectly for all of us. It also illustrates what I feel is the dominant situation in Europe to-day—a situation which might be contrasted with that which followed the signing of the Armistice in 1918.

You will remember the enormous thrill of relief when slaughter seemed ended and we all felt that at last we had peace, an opportunity for reconciliation and a chance to start the work of rehabilitation. This was more than four years ago. To-day there is less peace in Europe than in 1918, more bitterness, hatred, suspicion and jealousy. Many portions of Europe economically are worse off than at the end of the war. These are the dominant characteristics of the foreign situation.

The Ruhr invasion has not surprised anyone who has been following the march of events. It is, however, significant in bringing to the attention of those who have not, that Europe is, in the judgment of most observers, facing a situation in many respects as critical as that of July, 1914.

There are two sorts of reasons why France went into the Ruhr — the nominal reasons and the real reasons. Before taking up the latter, two or three basic considerations must be understood if we are to be fair to France and the French psychology of to-day.

"A Consensus of Various Opinions"

"I SHALL try to give you," said Mr. James G. McDonald, to an audience recently, "not so much a personal judgment, as a consensus of various opinions. What it lacks in definiteness and dogmatism may be made up, I hope by fairness and tolerance."

It was the notable fairness and tolerance of the address which especially appealed to the editor and led him to ask Mr. McDonald for the stenographic report. As chairman of the Executive Committee of the Foreign Policy Association, which seeks to broadcast accurate and impartial information of world conditions and thus to help shape an intelligent and consistent attitude in our relations with other countries, Mr. McDonald has had unusual opportunity to examine American policy—or lack of policy—in the light of international events.

From the New York "Evening Post."

WHERE FRANCE WILL COLLECT FROM GERMANY

The Ruhr Valley where French troops, in the words of Premier Poincare, have gone "to force respect for France and the Versailles Treaty." This region, which has been called the "solar plexus of industrial Germany," "the richest jewel in the Prussian crown," is full of coal-mines, steel-mills and textile factories. The diagonal shading indicates German territory held under the peace treaty; the spotted region, the Ruhr basin. The Krupp works are at Essen; the headquarters of the Stinnes organization are at Muelheim, between Essen and Duisburg.— *(Courtesy of Literary Digest)*

There are four facts which Frenchmen never forget and which both British and Americans are inclined to forget:

First, there is the simple fact that France is less than 40,000,000 while Germany is 60,000,000. Ten years from now, France will be 40,000,000 or less and Germany will be approaching 70,000,000. Twenty years from now, France will be 40,000,000 or less, and Germany more than 70 or 80,000,000.

Second, Frenchmen remember that, in order to dissuade them from following the advice of their militarists and taking over the Rhine as an armed frontier, they were promised two things by Great Britain and two by the United States. The first was the participation of both allies in the League of Nations. Britain is in and we are out. France was promised, moreover, a triple alliance or guarantee against German aggression consisting of the United States, Great Britain and France. We refused to ratify and Britain, taking advantage of our stand, refused also. To the Frenchman therefore, he has been twice deserted by us and once by Britain.

Third, France has never been paid for her devasted regions. Perhaps one-half of these have been rebuilt at enormous cost, without anything being received from Germany towards the expenditure. This does not mean that Germany has not paid anything. She has paid the Allies, in gold and goods, conservatively, from five to six billions of dollars. How does it happen that France received no reparations from this? All the cast of these payments which was available for reparations in devastated regions went to pay bill collectors. Except for a very small amount to Belgium, the money has been used to pay the French, British and Italian armies in Germany.

Fourth, unpaid France sees herself faced by two former allies, changed into persistent and nagging creditors. Britain, more willing to forgive her debt than we, still does not agree to do it unqualifiedly, while the United States refuses to diminish the debt at all.

Summing up, France sees herself enormously outnumbered by Germany, unsecured except by the League of which we are not a part, without the promised triple alliance, unpaid for her devastated regions, and unforgiven by her creditors. Is it surprising that

(Continued on page 140)

Editorial Page of the American Agriculturist

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What Is the Ruhr?

SO confusing has the present political situation in Europe become that even those who have tried to follow its developments closely have been asking: "What is it all about?"

Among the new names which have assumed sudden importance is that of the Ruhr, the little valley whence something very like war news issues daily. The significance of the Ruhr just now is a much-discussed and not always a clearly understood problem.

The American Agriculturist is fortunate in having secured from Mr. James G. McDonald the stenographic transcript of a recent speech in which he set forth clearly the ins and outs of the present Ruhr situation. Mr. McDonald's interest in the subject is that of a historian, rather than of a partisan. He presents the pros and cons of the matter in brief, logical fashion; no one who reads his article can fail to reach a better understanding of some of the perplexing problems now agitating Europe and also involving this country.

Mr. McDonald is Chairman of the Executive Committee of the Foreign Policy Association which is strictly non-partisan, having as its object the study of questions affecting the United States and the dissemination of accurate information about them. He thus has had a unique opportunity to become acquainted with the different representatives of European countries who have visited America officially or informally and has thus obtained, at first hand, valuable information on the present international tangle.

We should very much like to know whether or not the publication of articles on foreign affairs and their influence on American conditions is of interest to our readers. We welcome criticism and suggestions, and have been encouraged to continue the use of such material, especially when it comes from reliable and, as in this case, impartial sources. We shall be guided by what our readers write us in planning future feature articles.

The Way to Gain Confidence

THIRTY-EIGHT thousand stockholders of the Grange League Federation Exchange are to be congratulated on the financial report of the year's operations which has just been given them, in spite of the fact that this report shows a deficit.

It costs money to establish any business and to build up trade and good will. There are few business firms to-day that paid any dividends while they were getting on their feet during the first years of operation. The G. L. F. report shows that this cooperative organization is fundamentally right, and that it is making all the progress that can be expected. Success in the future will depend upon the support which it receives from its members, who own it.

The officers have laid all of the cards face up about their business on the table, and given their stockholders all of the facts and figures without any attempt at sugar-coating. In doing this they have recognized the ability of farmers to properly judge a situation when they have the facts, and they have recognized the principle that the permanent success of any cooperative organization depends upon the confidence of its members, and that the first rule to gain and keep such confidence is absolute frankness between officers and members.

Farmers Are Learning to Speak Up

A FARM leader recently made the statement that farmers just naturally will not write letters and he went on further to say that because they do not write letters their problems have not until recently received as much attention as they should from legislative and other leaders in public affairs.

How true it is that most farmers will wait sometimes two or three weeks in the hope of seeing a man personally so that they will not have to write a letter to him. We are sympathetic with this attitude for we know from experience how hard it is after a long day's work to sit down to a desk, hunt up a rusty pen and to write a letter with ink that was frozen two years ago last hog-killing time. It is this same distaste of desk work on the part of farmers that makes it so difficult for them to keep necessary records of their business transactions.

But here's the point. There is not very much use of working so hard on the production end of farming unless something more is done on the marketing and business end. While the farmer delays writing to a representative asking his support to some necessary farm legislation, the city man gets there first with a lot of letters and defeats the farm legislation. When the farmer delays writing until he can see a man personally, the other fellow gets there first with his letter and gets the business, and while the farmer delays to keep any farm records, the bad parts of his business which he does not know about go on piling up losses until he feels like closing up and moving to town. More and more farmers are learning the necessity of being more expressive, and to realize that the pen, or better still the typewriter, is as mighty as the pitchfork in the farm business.

Something to Think Over

WHEN freight rates were low and Western land was cheap, there was some excuse for the purchase by Eastern farmers of large quantities of Western-grown feed. But conditions have changed, and successful dairyman, large and small, must change their business to meet those conditions. Land which was formerly cheap in the West has become dear. The one-crop systems of the West have reduced the fertility of the soil. Freight rates are high and are bound to continue high.

There was a time when our fathers used to produce great quantities of husked corn. They stopped growing it because the West could do it cheaper, but with present prices of feed many Eastern farmers are finding to their surprise that they can now grow corn at a cost which will successfully compete with that purchased from the West. The same is true, too, of many of the small grains, and much more attention is being given by Eastern farmers to legumes like alfalfa, soy beans, and clovers which are high in protein content that help to keep down the amount and the cost of purchased concentrated feed.

In planting crops for the coming year, this changed feed situation is something that every dairyman should think about. As one farmer recently said: "The time is evidently past when Eastern dairy farms can be nothing more than feeding stations for Western grain."

Take Time to be Sure

WHY hard-headed and otherwise sensible farmers continue to invest their lifetime savings in worthless stocks and other get-rich-quick schemes is certainly hard to understand. Yet, hundreds of farm people are constantly being swindled. Oil stocks catch the most, but other ingenious schemes and baits for the unwary get their share and no amount of warning seems to have much effect.

Recently a smooth talking stranger appeared in Southern New York with a plausible scheme for selling stock in a big industrial plant to be put up in Syracuse. He would take no cash, but took the farmers' notes which were to be paid when the plant was built. The investors heard nothing more until one of the notes turned up in the hands of an innocent third party and the investor had to pay it.

If farmers would only remember a few fundamental principles what a world of trouble might be avoided. Notes should, of course, never be signed for strangers. The first place for any surplus cash is in your own farm, a business that you know something about. The second place is in Government securities. These are absolutely safe and pay a fair rate of interest. Nearly every village contains bankers and lawyers whose business it is to know about investments. These men will give you advice which can be relied upon, and there are few business deals that cannot wait until you can talk the matter over with them. The Service Bureau of American Agriculturist will be very glad to investigate any proposition for you and advise you about it without charge.

Quotations Worth While

We rise in Glory as we sink in Pride;
Where boasting ends, there Dignity begins.
—YOUNG.

* * *

It may not be quite fashionable to believe in common honesty, but it is a good piece of furniture and will last a man his lifetime.

* * *

I have seldom known one, who deserted truth in trifles, that could be trusted in matters of importance.—PALEY.

* * *

It matters not so much what part we play, as it does to play our part well. In a drama it is not so much a question who played the King or the Peasant, as who played the part best.

The Hired Man's Complaint

Did You Ever Stop To Consider This Particular Angle of the Question?

LAST summer, while I was going to Philadelphia on a train, a workingman with his dinner pail sat beside me. He soon spoke of living out in the country, and said he went in daily to work in the city. I said to him: "I should suppose you could get work around home now, every farmer is busy, and help seems to be scarce." That started him as follows: "These farmers won't hire a man unless they have a big day's work all ready, so they can put him through and make him do more than any man can stand, week after week. They won't try to make work for one so as to give him steady employment and allow him to live. No, they want him to lie around half the time doing nothing, but be ready on call to do two or three days' work in one, to work long hours, and then they complain about the price, and often I have to run after the money several times before I get it. I am glad to see some of them hard up for labor; it will do them good. Perhaps they will learn, in time, to do more as they would be done by. I bought a little home in the country and was willing to earn my money faithfully, but they starved me out. Now I go to town, have steady work, regular hours, am never overworked, my pay comes on time, and I am able to take much better care of my family. No, I have got all I want of working for farmers."

Now, did you ever think of the laboring man's side of the question as he has put it? There is much complaint of men going to town or shop or factory to work, of the scarcity of help on the farm. The laborer wants to do his best, the same as you do, for himself and family. Doesn't that sound just natural, about getting a man when you had a solid day's work, at pitching hay, hauling and crating peaches, digging potatoes, cutting corn, some hard job all ready to put him through?

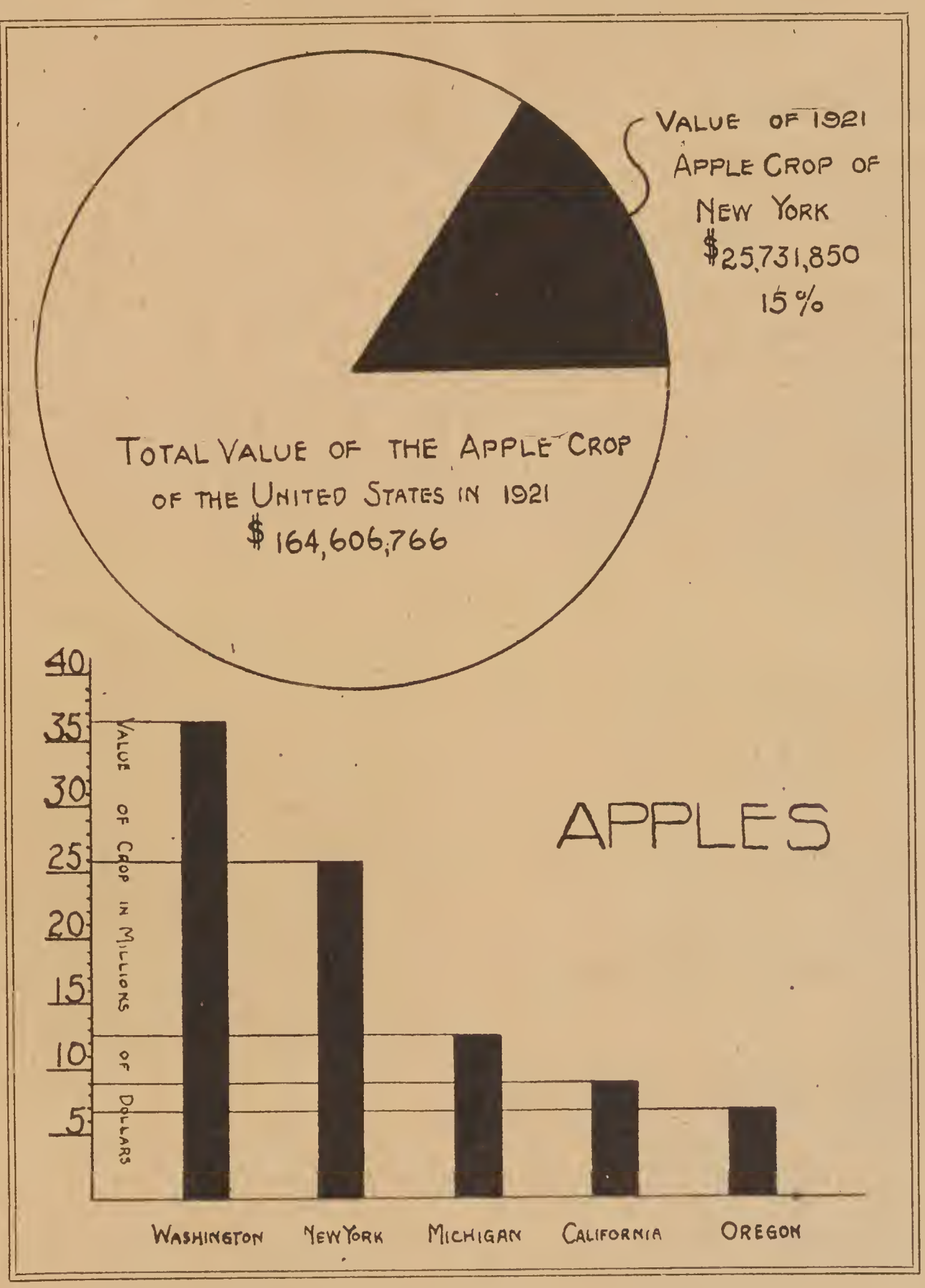
I have done it lots of times, and I confess to never thinking that he could not work like that every day of the year, any more than I could. And haven't you kept a man at work more hours than he would have to put in in the city?

We always made it a rule to quit at 5.30 p. m. But I am afraid I laid out a little too much sometimes, so they had to put in a few minutes extra to finish up; it is so natural when one is trying to get ahead.

But my conscience is clear on one point: No man ever had to run after his pay on our farm when the work was done. He got it in cash or check every Saturday night, or when he wanted it. The money was in the bank, ready, no matter how short we might be ourselves, and our men got their pay promptly. That much every employer owes to labor, surely. And, as a rule, we pay our men more than others do. First, we employed only the best, at least those that were willing to earn their money, and then we never liked to feel that they were not fairly paid. And that matter of making work for men—those not employed by the season or month: I certainly have done it many a time.

During a breathing spell between haying, hauling peaches, cultivating, etc., I nearly always had jobs ready for them, cleaning ditches, cutting brush, fencing, mowing lawns, cleaning stables, or something. Maybe this was partly selfish, to hold the men until the big jobs, where I must have them done; but still I don't believe any of the men who worked for us ever talked about us as the one quoted above did about the farmers who employed him. More than once my wife and I talked it over, that come what might we did not want to get ahead by not treating hired men as well as we would want to be treated in their places. We tried to remember, if there was extra work to do at night, that we were getting paid for what we did, while, unless we paid the men extra, they were working to help us without reward.

Think of these things, dear readers. Are they not right, and also the best business policy? Get good men, study to make their labor pay well, and then see they have a fair share of the reward. If farmers are poor pay, and furnish irregular work and demand long hours, slowly but surely the best men will go where they can do better.—C. A. UMOSELLE, New Jersey.



The Importance of New York in American Agriculture—No. 5

Although this chart indicates that New York stood second in 1921, nevertheless on the five-year basis New York ranks as the chief apple producer of the United States

The Credit Problem and Risks

I WAS especially interested in your editorial entitled "More Than Credit Needed." My observation for a number of years is that the person who can use credit profitably does not have much trouble in getting it under present conditions. Banks here, of course, do not loan on long-time loans, but they give their patrons the privilege of renewal of notes, and in this way the interest is kept up to date.

There are many persons—farmers and others—that if they can get credit easily they take risks that do not show good business judgment. The result is that their ventures do not turn out profitably, and pay day finds them in a worse condition than they were when they made the debt. A system that would make borrowing easy for farmers of this class is dangerous to both the borrower and the lender. It probably would be best for farmers to be enabled to hold their crops off the market at certain times, but if all would adopt this plan, would not the glut of the market finally come, or would not its life be just prolonged over a longer period of time? The higher the price of a commodity, the less of it is used. High prices make us economize in its use.

Take wheat as an example. If we should have a very large wheat crop, and the price of wheat was below cost of production, suppose that farmers should borrow money and hold the wheat, or a large part of it, over until the next year, and there was another good wheat crop, the holder of necessity had to pay interest on the value of his old wheat crop, which is held only to come in competition with a new crop of wheat that perhaps would not sell higher than the old one would have sold. Thus we see that there is a risk in holding.

On the other hand, if the crop had been sold and the money put to interest for one year at 6%, provided it could not be more profitably invested, could not a slight difference between cost of production and the selling price have been made up without so much risk to the producer? If a business man makes what he finds to be a poor investment, he gets what cash he can out of it as quick as he can and invests his money in something which he thinks will bring him a profit.

Is it not usually the safer plan for the farmer to do the same rather than to take greater risks on borrowed capital?—A. J. LEGG, West Virginia.

I hate a sharp tongue, the ruin of kingdom and home. I long for silence.—CONFUCIOUS.

Invest in a McCormick-Deering Manure Spreader for More Profitable Farming

The basis of profitable farming is a fertile soil. In farming, as in other businesses, there are poor years and good ones, but the farmer who keeps up the productivity of his soil will forge ahead.

No method of maintaining soil fertility has proved so efficient as the proper application of barnyard manure. It is a foresighted policy to build up crop yields with a McCormick-Deering Manure Spreader. Put manure on your fields finely, evenly, uniformly, and economically; the extra fertility will in a short time pay for the McCormick-Deering spreader.

Note again these features in McCormick-Deering construction: 1. Power delivered from both wheels. 2. Double ratchet drive with six feed speeds. 3. Short-turn front axle—no pole whipping. 4. Rear wheels track with front wheels. 5. Tight bottom. 6. Two beaters and wide-spread spiral. 7. All-steel main frame.

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PEDIGREED OATS treated to prevent smut. CORNELLIAN—Development—Single plant selection by Plant Breeding Department New York Agricultural College. A tree oat slightly gray in color, good stiff straw. In five years' trial on Agricultural Experiment grounds at Ithaca, has yielded about five bushels more than nearest competitor. Of all varieties under test there in 1920, it was the thinnest hulled variety and had the largest percentage of meat.

SVALOF VARIETIES, STOCKS SECOND CROP FROM SWEDEN.

VICTORY is the leading white variety in New York State. In four year tests by Department of Plant Breeding shows this second to Cornellian. Good stiff straw. Should be sowed thin.

CROWN newer sort than Victory, longer kernel. In Sweden outyields Victory on particularly good soil. Lodging resistance good. Should be sowed thin.

GOLDEN RAIN, yellow oat, remarkably stiff straw. In Sweden is unexacting as regards soil. Grain medium and heavy with thin hull.

Price on all above sorts $1.50 per bushel.

PEDIGREED BARLEY, Cornell's two favorites, FEATHERSTON No. 7, a six row barley originated at Minnesota Agricultural Experiment Station. Medium, tall stiff-strawed sort, high yield heavy grain. Recommended for separate grain crop. Most consistent high yielder of all six row sorts at Cornell Agricultural Experiment Station. None of this variety available but what shows trace of two row.

ALPHA two row, a hybrid. A tall stiff straw sort maturing later than standard six row. During five years has excelled all other sorts in yield at Cornell Experiment Station. Especially desirable for sowing with oats. We recommend the Victory or Crown in combination with Alpha.

Price—Featherston $2.00 per bushel, Alpha $2.24 per bushel.

SEED CORN, New York State grown from selected ears in special fields.

CORNELLL ELEVEN (Pedigreed). Developed by Plant Breeding Department, New York State College of Agriculture through individual ear-to-ear selection. A yellow dent corn successfully used for ensilage and for husking as well in the more favorable sections of New York State. Average requirements 120 days for maturity. For grain use 4 to 5 quarts per acre. For ensilage use 6 to 8 quarts.

OIL DENT (Improved), for husking and ensilage. Somewhat earlier than Cornell Eleven. Adapted when elevation too high or season too short for Cornell Eleven. Same rate planting.

A trial of this seed properly put in will wean buyers of cheap seed. Prices both varieties—Screened $3.00 per bushel. Tipped and butted for accurate planting in check rows $5.00 per bushel.

CERTIFIED POTATOES, HIRUCO NUMBER NINE, smooth skin Rural type, having special care by our Plant Pathologist. Very free of disease, special care taken to eliminate Giant Stalks, treated for rhizoctonia and scab, then held in cold storage. Especially adapted for seed plots, $3.00 per bushel, two bushel sacks. GREEN MOUNTAIN, a strain having special care of our Plant Pathologist. Treated and carried in cold storage for seed plots, $3.00 per bushel. IRISH COBBLER, a strain exceptionally free of disease. For seed plots, $3.00 per bushel. BLISS TRIUMPH, one of the best strains in the United States. Exceptionally free of disease. For seed plots, $3.50 per bushel. Packed in one bushel boxes, $4.00.

NUMBER NINE, grown from HIRUCO Number Nines. Put up in 2 or 2½ bushel bags, $1.75 per bushel. RURAL RUSSETS, grown from one of the best strains of Russets in the State. Put up in 2 or 2½ bushel bags, $1.75 per bushel.

SOY BEANS, Black Eyebrow, an early sort. Bids fair to be most popular sort in New York and Pennsylvania. Price $4.50 per bushel.

HUBAM SWEET CLOVER, Scarified, high germination and purity. Grown in New York. Price small lots 50 cents per pound postpaid. Bushel lots or over, 40 cents per pound.

All prices are freight paid, bags free. All orders to be accompanied by 25% cash or 3% may be deducted if making payment in full.

Investigation through Farm Bureaus or Agricultural Colleges invited.

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An Oft Debated Subject

The Proper Handling of Manure is Not Settled Yet

By H. E. COOK

Will you kindly give me some information on using sheep manure? I would like to know what crops it is good for and something about handling it.—CHARLES H. BORCHERS, New Jersey.

THIS question seems like an old friend, for of late manure subjects have been less to the front and I am rather pleased to get it. The conservation and handling of animal manures is a long way from being settled along lines that give us the largest returns and the least loss. There has been marked improvement, however, in the dairy sections of the East through the construction of concrete stable floors and direct hauling from stable to field. Boards of Health should have some credit for they compelled the water-tight floor and the removal of manure daily from near the buildings. So if it must be taken a short distance, we may as well move it to the field and have the job done. This method for the major part of the year is altogether the cheapest and best. In many sections this plan is impracticable, perhaps the fields are open or the manure is used principally for top dressing meadow land where better results will be obtained by fall application with a spreader.

H. E. COOK

It is, I think, a fairly safe statement to make, that the same amount of plant food in manure will bring more crop return applied to a good husky sod with a spreader in the fall than in any other way. Grass roots will absorb plant food up to freezing time and they are then stronger and better able to go through the winter. The mulching effect is also valuable to which can be added the increased bacterial growth near the surface, a pretty important part of grass growing. For corn growing there can be no question that direct-from-stable-to-field application is best.

On the other hand, the trucker has a different set of problems to deal with. He wants rapid plant growth for plants that must have an excess of available plant food ready for them from start to finish, and this can not take place with coarse fresh farm manures. The organic matter must be decomposed by some sort of holding process. A cement pit is best where no liquid is lost. If this plan is not available, then careful holding in piles is next best. Where considerable bedding is used, the loss will be small if the pile has perpendicular sides and a dishing top that will hold uniformly distributed the summer rainfall which will all be needed to decompose the mass. One can often notice piles, irregular in every way with the rainfall passing through it in spots. This means parts leached by excessive drainage and parts half dry from lack of water.

If very complete decomposition is desired, the pile should be forked over once or twice during the summer season. Air, heat and water are always necessary for decay whether a fence post or a pile of manure, and if the change is to be uniform throughout the pile, then these three requirements must be uniformly present. Hit or miss piling will not be satisfactory.

Composition of one ton average manure from farm animals:

	Water	Nitrogen	Phosphoric Acid	Potash	Value
	Per cent	Lbs.	Lbs.	Lbs.	Dollars
Horse	78	14	5	11	$3.30
Cow	86	12	3	9	2.74
Sheep	68	19	7	20	4.74
Pig	87	10	7	8	2.52

"Horse and sheep manures contain less water than that of cows or pigs and are known as 'hot manures,' because their low water content permits rapid fermentation when stored. On the other hand the voidings of the cow and pig form 'cold manures,' the high water content checking fermentation. Sheep manure has the highest value per ton based on fertilizing constituents; cow manure the lowest."

The foregoing table and paragraph is taken from Henry's Feed and Feeding page 278, issue of 1915.

Again I quote Van Slykes table, page 295, Feeds and Feeding:

	Nitrogen in		Phosphoric Acid in		Potash in	
	Urine	Feces	Urine	Feces	Urine	Feces
	Per et.	Per ct.	Per ct.	Per ct.	Per et.	Per ct.
Horse	38	62	0	100	44	56
Cow	51	49	0	100	85	15
Sheep	48	52	5	95	70	30
Pig	33	67	12	88	43	57
Average.	43	57	4	96	60	40

I have used these tables for the benefit of our subscribers and others who may not have given time to study the difference in the make-up of farm manures, not including poultry which is in a class by itself.

Whatever the right method of handling manure is—this is certainly not it

The Value of Sheep Manure

Sheep manure is seen to be worth about 70 per cent more than cow manure and is high in nitrogen, phosphoric acid and potash and low in its water content and if allowed to heat would lose nitrogen very rapidly. On the other hand it very seldom does, because in the summer it is tramped down tight expelling the air and literally canning it with no loss. There is not water enough anyway to leach out, with some bedding, and it will not heat. Sheep manure can usually be depended upon to measure up to and use less than others, which are likely to have lost in handling.

No one can tell how much to use of any animal manure. It is determined by the previous texture and fertility of the soil, the amount of moisture normally carried in the soil during the growing season, the amount of bedding and the state of decomposition. When the soil is in fine physical condition, always moist and open textured, less manure is required, although soil in this condition will safely take more coarse unrotted manure than a hard dry soil. Never forget that coarse green manure in a dry soil will be of little value beyond the liquids and may be a positive damage until rotted and

(*Continued on page* 142)

Experiences With Sudan

What We Have Learned of This Forage Crop

By H. E. COX

FOR determining the value of new varieties of forage plants it is well to compare the experience of as many as possible of those who have grown them for a few years in different localities and under different conditions, and different modes of culture. Perhaps our experience with Sudan grass may be helpful. Last year, 1922, we had one row in the garden that was well cultivated and kept entirely free from weeds and other grass. The plants were slow in coming up and of slow growth at first. Still after they got started the growth was rapid and rather remarkable, especially the stooling habit of the plant.

It was cut four times and when heavy frosts came there was still a broad solid row of healthy green. It was hard to believe that those small plants at first could attain such a spread of branches. Although the season was unusually dry, there was no brown or dried leaves on this forage. This year we prepared quite an area, getting the ground in fine shape, plowing under a coat of manure and sowed the seed broadcast the 25th of April, the same date of last year's garden sowing, and covered with a light plank drag.

The plants came so slow and scattering that the weeds got the start to the extent that the piece was mowed over July 1, and left on the ground. There was a good growth after this that had the start of the weeds. This was cut August 1, and cured for hay. The grass then again made a good growth so that on September 18 it was again cut, averaging about four feet in height, a good, clean and well cured crop.

A Heavy Third Cutting

A safe and conservative estimate of this third cutting is a half ton on the quarter acre. Our experience with this forage these two years leads to a belief that it will prove of great value when grown on land adapted to its growth, for like its cousin the corn plant, it will not thrive on land that is cold and wet, or where the rank weeds get the upper hand.

Join it in rows about the same as beans, twenty-eight inches apart, and cultivate the crop. Still there were mistakes in the managment of this year's crop that would have made a great difference if we had only known. I believe that if the ground had been kept under cultivation a month longer or until May 26, so as to kill those weeds, and get a firmer seed bed, and if the seed had been harrowed in lightly and rolled, there would have been a different report on the 1922 experience. For sowing the seed broadcast it will not work with the grass-seed machine, and is too small to sow with the grain drill, so it appears that the old-fashioned hand broad-casting has to be practiced. The seed greatly resembles that of broom corn, as this plant belongs to the corn family. It appears to be adapted to a wide area and when we became wise as to its requirements and habits there is little question as to its value as an addition to our already large number of forage plants, as its drouth resistance is remarkable and it will afford an abundance of choice green fodder through the dry season of July and August. As there is abundance of moisture in the ground at this date, there is plenty of time for this stubble to start up and make a good growth before heavy frosts occur to kill it and this can either be pastured off or allowed to remain as a winter mulch for the ground, the value of which is often overlooked in our farm management.

HARDINESS DETERMINES THE VALUE OF SEED

A. L. BIBBINS

The hardiness of seed depends largely upon its pedigree and origin. A great difference exists between the hardiness of seed produced in Europe, South America and southern regions of the United States, as compared to seed coming from hardier regions of the North. It is also found that there is a difference between the seed coming from various sections of the North where there is a more severe test of the hardiness and only the fittest can survive.

It is the wish of the writer that every reader of the American Agriculturist might visit some the tests conducted by the agricultural colleges and the United States Department of Agriculture. They would see for themselves the comparative differences in hardiness and productiveness of seed coming from all points of the world. If every eastern farmer were to follow the lesson brought out by this test, their net income not only from forage crops, but from the farm as a whole, would be materially increased.

In one test in particular, samples of clover seed produced in northern Europe, southern Europe, South America, the middle western states, northern states, northwestern states, on the Pacific Coast were planted side by side under exact soil and climatic conditions. Seed coming from Poland, Germany, Hungary, northern and southern France, Italy and Chile gave equally as good catches as that coming from Indiana, Ohio, Illinois, Michigan, Wisconsin and the northwestern states.

First Winter Shows Weaknesses

After one winter had elapsed, there was a marked difference in the various strips of clover, some cases only a half a stand remained. In other cases not more than 25 per cent of the plants had lived over the winter and in some strips a complete failure resulted. This was particularly true of the seed coming from South America, Spain and the Mediterranean districts of Europe. The conclusions drawn from the tests were that the productive value of seed grown in foreign countries is very doubtful when seeded under North American conditions.

One very interesting point brought out was the hardiness of seed coming from a few sections of Michigan. This same seed also produced the greatest amount of second growth which is a valuable point to consider. For dairymen in need of pasture, such seed has an additional value. After removing the hay crop, the strong second growth provides excellent pasture. Even though pasture is not needed, this second growth is of considerable benefit as it provides a leguminous growth to turn in under as a soil enricher, the benefit of which is spread over several years.

Most of our remarks in this article have pertained to clover seed, but we wish to assure our readers that the differences in most cases, were more striking in the alfalfa tests and it is of equal importance to be positive relative to the origin of alfalfa seed.

Danger in Imported Seed

There are several million pounds of imported alfalfa seed in North America to-day. These tests have shown that such seed cannot be compared with the productive and hardy strains produced in the best growing regions of North America. We are also confronted with the existence of several million pounds of seed raised in the South and southwestern territories of North America, which is also poorly adapted to our Northern conditions.

We can no longer afford to gamble on our seed. The value of the crop is too great. The best of soil fertilizers and culture conditions cannot produce a successful crop unless the very best of seed be used. The seed is the underlying foundation.

COMING EVENTS

February 21-23, Eastern Meeting, N. Y. State Hort. Society, Poughkeepsie, N. Y.

March 3, Boston Market Growers' Association, 12 S. Market St., Boston, Mass.

March 12-17, International Flower Show, Grand Central Palace, New York City.

March 17, Boston Market Growers' Association, Anson-Wheeler Estate, Concord, Mass.

May 15-16, American Guernsey Cattle Club, New York City.

June 21, Dairymen's League Cooperative Association, Utica, N. Y.

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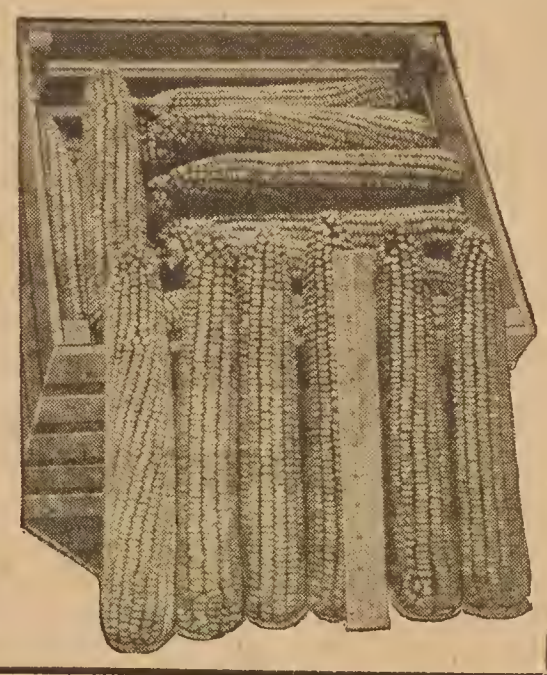

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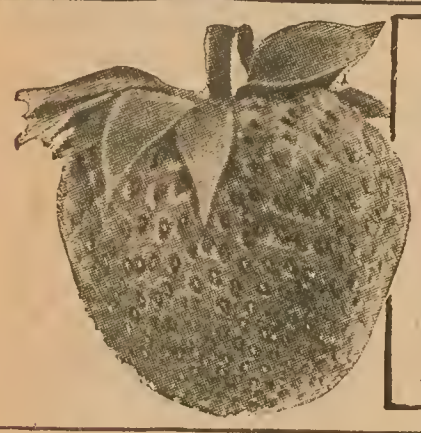

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The March of Events in the Rhur

(*Continued from page* 135)

she has been deserted, even betrayed, by those upon whom she naturally would have almost completely relied?

Reasons for the Invasion

As to the reasons why France went the Ruhr, the first and most direct which she advanced was that she could thus collect the profits of the German mines, factories and railways and also could impose a special tax on things which went from the Ruhr into Germany. The first object has already failed. It never seemed it would work. You cannot substitute for the normal economic control of a vast and intricate machine such as the Ruhr, a foreign military control without turning profit into a loss. Business men know that the line between profit and loss is very narrow. It was certain from the beginning that whatever else the occupation did it would not bring income from industry or taxation.

The second reason was the bringing of pressure to bear on the German Government and German industrialists to do what they had failed to do without pressure. This, too, I think will fail first, because the country is now in such a state that no amount of coercion can force her to pay substantial money payments, and second, because German industrialists have put their funds outside Germany and cannot be forced to bring them back.

Taking these points up in order, we consider first the economic condition of the country. Casual travelers say that Germany is prosperous; that workers are busy, employers piling up dividends and evidences of luxurious living are everywhere. The prosperity of Germany is a mockery, however, for it is based upon fundamental weakness, as evidenced by the dramatic decline of the mark within the last few years. One of the reasons for the apparent wealth is that no German is saving money. The continuing fall of the mark means that money saved ceases to exist; therefore everybody is buying goods which, at the end of a few months, will still have value. With everybody selling marks and nobody buying them, it is inevitable that they should reach the vanishing point. Germany is going the way of Austria and Russia.

So far as the industrialists are concerned, Stinnes and others upon whom France wishes to bring pressure will avoid payment, because their funds are outside Germany and they cannot be forced to bring them back. Sir Robert Horne, the English economist, recently said that there was only one condition under which these German credits, which may amount to from two to four billion of dollars, now placed in Holland, Great Britain and the United States, could be brought back and made a source of reparations; that is, by making Germany so prosperous that the industrialists would be paid to bring them back. There is no other way except confiscation, which under modern arrangements of international relations, is impossible.

Dangerous Security

The third reason for going into the Ruhr was security. As long as France holds the Ruhr, the French argue, Germany at least will be helpless. This is true, but it is dangerous to France, because if she continues to hold the Ruhr indefinitely, the chances are that not merely will the mild resistance by sabotage, strikes and passive obstruction continue, but there will be a serious condition of social, economic and political upheaval in Germany, which might easily result in complete dissolution of what we know as Germany.

France might say, "We can stand it as long as the Germans can," but how long will Great Britain and the United States stand it? Britain's stake in the recovery is not merely idealstic or political—she must feed her people and avoid starvation for her workers. If France's actions point toward a break-up of Central Europe, I believe Britain would check the French game. How, I would not venture to suggest, but I have confidence in the British soundness of judgment and willingness to be guided rather by intelligence and common sense than by passions and hopes. So even security will be a rather doubtful issue for France.

This may end in failure and withdrawal of the troops, or in partial success, and withdrawal, but more probably the result will be part failure and part success and will lead to a continuance of the occupation until both Germany and Europe as a whole suffer seriously. The danger lies in the fact, that continued pressure might so encourage the enervating and dissolving forces in the German body politic, that it would bring about a situation in Germany like that in Southeastern Europe and Russia.

Two Problems Remain Unsolved

Quite aside from the result of the occupation, two major problems will remain unsolved—reparations and inter-allied debts. The whole matter is so complex and involved that no human being can understand it, much less suggest a formula to solve it. All we can do is to put our finger on one or two obvious obstacles to normal recovery. Two which are checking the natural curative forces which should be freed to work effectively against those of disintegration are the questions of what Germany owes the Allies, and what the Allies owe each other.

The problem of reparations has been bedevilled for the last four years by the settlement at Paris. The basis mistake was the fixing of a sum for Germany to pay, which was three times what rational people thought she could pay. This happened because of the war psychology in France, which would see no diminution of the claims against Germany, and also because at the last moment President Wilson was persuaded to include two items which had no legal basis—pensions and separation allowances. This trebled the bill, making it a fantastic sum which at once destroyed German credit and weakened the German desire to pay. And, even worse, the portion which France was to receive was reduced from 75 per cent to about 50 per cent.

That is the story in brief of the failure of the peace-makers. Politicians have been trying to undo the effects ever since, but with little success.

Mr. Hughes suggested in New Haven that France consent to the appointment of an international committee of experts, to treat Germany as a bankrupt, determine her assets and find out what she could pay on a business and not a political basis. France courteously refused. The French thought Mr. Hughes' proposal one-sided and illogical because in the same address he announced that we would treat France and her debt on a political and not a business basis. The French pointed out the relation between Germany's obligations to France and those of France to us.

America Must Face Facts

Until we are prepared as a people and as a Government to face the facts, that we must deal with the Allied debts in much the same way that we expect the Allies to deal with the obligations to them, we cannot be much use in the European situation.

Do we prefer to pay the price of increasing isolation or that of cooperation with Europe? Ex-Governor Lowden of Illinois, says that the price of isolation is 30 per cent of our wheat fields turned back to prairie, 20 per cent of our corn fields turned back, 50 per cent of our cotton fields turned back into southern forests and our commercial life completely disorganized and in large part destroyed. This is the price of isolation which, if you like, you may pay. The alternative is international cooperation, with the United States assuming some measure of responsibility for peace and order. This is the simple question facing us to-day. We are running away from it rather than deciding it.

The question is, shall we stand aside and offer elaborate explanations why any specific proposal cannot succeed or shall we take a chance, dare to say to our people some things they do not like, and assume on the part of Americans an intelligent, sympathetic and a generous, but particularly a courageous attitude toward Europe. Courage seems to me the one thing now-a-days which matters most.

With New York Farmers

Winter Meetings are Formulating Firm Farm Opinion

THE following resolution was passed at the regular monthly meeting of the directors of the Dutchess Farm Bureau Association, held January 27:

WHEREAS, The farmers and farm organizations of New York State endeavored for years to have laws covering work of the Department of Agriculture enacted that would protect the department from political influences; and,

WHEREAS, The agricultural laws of the State, as revised two years ago, provide for a single Commissioner of Farms and Markets with full power of control over the different bureaus; and,

WHEREAS, Under the present law, the duties and powers of the Council of Farms and Markets consist of the appointment of the Commissioner of Farms and Markets and to act in an advisory capacity; therefore, be it

Resolved, That the Dutchess County Farm Bureau Association hereby goes on record as opposing any change in the law that will lessen the powers of the Council of Farms and Markets, and that a copy of this resolution be mailed to the president of each Farm Bureau Association in the State, and also one to our Assemblymen and Senators and to Speaker MacHold of Albany.—T. E. CROSS.

J. B. PEASE DIES SUDDENLY

J. B. Pease of Gasport, Niagara County, N. Y., died of pneumonia on Sunday, February 4. His death was very sudden, as he was ill only two days. He was prominent not only in his county, but throughout the State. He was elected President of the New York State Horticultural Society at the annual meeting held January 12 and 13 at Rochester.

WESTERN NEW YORK NOTES

ALVAH H. PULVER

Pickle growers in several parts of Western New York will welcome the news of the sale of the Alart & McGuire Company's chain of plants to the Empire Pickling Works of New York City. This means that instead of idle plants for another season, contracts will be placed this spring and all the plants restored to their former activity. In this section the Alart concern operated at Wallington, Ontario, East Williamson, Palmyra, Oswego, South Bay and Walworth, with five gathering stations elsewhere. The new firm announces that a modern kraut plant will soon be built at Ontario. Another announcement of importance to the growers is that at each point where a branch is located the firm will carry a balance at the bank so that growers may be paid for cucumbers upon delivery. This should do much to revive the industry throughout this section of the State and bring back many growers who last year switched to other crops.

The Lyons Cold Storage Company, Inc., has elected officers for the year as follows: President, Charles Coffey; Vice-president, Judson E. Snyder; Secretary, Edson W. Hamm; Treasurer, Saxon B. Gavitt; directors: Charles Coffey, Charles W. Barrick, Judson E. Snyder, Saxon B. Gavitt. The company is now under contract with one of the large Chicago packing houses to store a big shipment of meat for European account.

Fancher Growers' Cooperation Reports Big Achievements

The annual reports of the Fancher Growers' Cooperative Association, held in Hulburton, showed that association members obtained a $5,044 increase on the tomato crop, $500 increase on the pea crop at Fancher and $400 increase for the pea growers at Clarendon; $2 per ton on the 9,265 tons of tomatoes at Holley. In one locality alone the increased income on all crops amounted to $7,396, credit for which is due the association. The total cost of the association, including incorporating, was less than one-fourth of one per cent. Directors for the new year were elected as follows: Cole Howard, Angelo Piedemote, Geo. Chadwick, one year; John Craddock, E. E. Root, three years: Fred Hinds, John F. Piedmote.

The Temtor Corn and Fruit Products Company of Penn Yan has been sold to the Yates Canning Company and will be operated by the new owners this season. It is planned to make the plant one for the processing of vegetables, especially peas.

Wool Pool in Livingston a Success

The Livingston County Sheep Breeders' Association pooled 31,000 pounds of wool last season, shipping from Avon and Dansville. Partial returns have been received, indicating a net return to the growers of from 5 to 10 cents a pound over price they would have received if fleeces were sold in the old way. Officers were elected for the ensuing year as follows: President, L. H. Beecher, Livonia; Vice-president, John McNaughton, Caledonia; Secretary and treasurer, George L. Peabody, Springwater; directors: E. D. Mulligan, Avon; J. G. Morris, Groveland; R. W. Beecher, Livonia; Frank Stewart, Springwater; Floyd Van Hooser, Sparta, and J. H. Whitney, York.

Plans are being rapidly developed for the reclamation of about 1,000 acres of muck land in the vicinity of Arkport and Burns, in Steuben County. The committee in charge of details consists of William Stempfel of the Steuben County Farm Bureau; Charles Gates, William Snyder, John Taylor, Bert Barnes, Clifford Wilkins and Jacob Schwingle. It is proposed to put through a ditch with outlet two miles down the river from present outlet to prevent the inrush of backwater.

A certificate of incorporation for the Palmyra Creamery has been filed with the County Clerk. The concern has three directors and will have its principle office in Palmyra. Officers are as follows: President, Charles A. Hyman of Newark; Secretary and General Manager, Morris Genthner, Newark; Treasurer, Henry W. Hyman, Newark.

Warsaw League Branch Stands Firm

At the annual meeting of the Warsaw branch of the Dairymen's League officers were elected for the year as follows: President, A. G. Shumaker; Secretary and Treasurer, Floyd Arnold. Two directors were elected in place of F. M. Cook and Merrill E. Slocum. Not one member withdrew from membership in the League.

Thousands of dollars worth of celery

(*Continued on page* 145)

DELAWARE GRANGE AGAINST FARM CREDITS

THE quarterly meeting of the Delaware County (New York) pomona was recently held with the Walton Grange. The morning session was occupied with the appointment of committees by Worthy Master R. D. George and various business reports. There was a gain of 154 members during the year. A fine dinner was served by the Walton Grange to 180 grangers. The address of welcome was given by William Telford of Walton Grange, and the response by Robert Chambers of Hamden. Addresses were given by J. W. Bump, Prof. M. P. Rassmussen and Supt. of Schools E. O. Harkness of Delhi; Irving Conklin of Downsville, Mrs. G. M. Dent of Stamford, John A. Sharpe of South Kortright and Mrs. J. Scrambling of Treadwell were elected delegates to attend the annual meeting of the State Grange at Syracuse during the past week. The meeting adopted resolutions opposing increase in the amount of loans to be made to farmers by the Federal Land Banks and one pledging to support the National Government in its work to save and protect the Armenian people.

Learn the truth about Fertilizer

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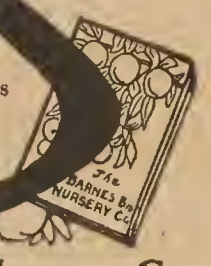

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A Question of Support

Annual Meeting Shows G-L-F Can Give Service

STRIKING the keynote of the day's session, President Webb opened the second annual meeting of the shareholders of the Coöperative G. L. F. Exchange at Syracuse, February 5, by the following statement: "The success of this Exchange depends upon the support of its members. The reports that will be presented to-day are designed to show exactly where the organization stands. Considerable study and research has been given by the directors to place your Exchange on a solid and permanent basis. The departments that have been established are now operating in a business-like manner. The goods handled are of high quality and the service commendable. We firmly believe that the shareholders of the G. L. F. Exchange can derive material benefits by patronizing their own organization."

Following President Webb, Treasurer Hitchings reported the financial condition of the Exchange. His statement showed that after all depreciations on buildings and real estate had been absorbed, the total operating deficit since organization was approximately $47,000, a figure exceptionally low considering the newness of the organization, the tremendous competition and the general economic strain of the past few years.

Babcock Stresses Need of Volume

Calling attention to the need of a greater volume of business, H. E. Babcock, General Manager of the Exchange, stated that from the farmer's viewpoint it looked to him as though the business we had set up was right on the verge of being a great success or an absolute failure. "As it stands to-day," said Babcock, "your organization is set up to treble the volume without increasing the costs. Treble the volume and you will make a great success. You own this company, your nine directors and the management have set up these four departments and a fifth to supervise and correlate activities. All five departments are functioning as they stand today, and are just about paying their way. Treble the present volume of business and you will get cheaper seeds, cheaper feeds and dividends. Restrict the volume, and, with the same costs to be borne, you might as well wipe the whole thing out and start over again. I believe that we have worked out a service and have a line of goods that we farmers want, and if we put the proper volume through the Exchange we can get the price."

Mr. Babcock further stated: "The proper way to use the Exchange is to give your order without price. Last fall our agents followed this plan and the Exchange made good, for to-day there are being unloaded cars of G. L. F. feeds at $10 per ton under the present market."

Throughout the afternoon session the shareholders present discussed with utter frankness and sincerity just the standing of the Exchange, what it needed, and how to gain the increased volume which seems to be the one necessary requirement for success. The program of quality commodities bought as a user wants them bought and not as some one wants to sell him was stressed over and over again, and the determination of those present to stand on such a program ought to challenge the 38,000 shareholders to renewed action and patronage.

It cost $750,000 to put the G. L. F. Exchange into action. Like any investment, proper returns can never be expected unless the service which the Exchange can render is used to its fullest capacity.

Directors Elected

At the conclusion of Mr. Babcock's report and the discussion which followed, the election of three directors took place. George A. Kirkland of Dewittville was elected to succeed himself for a term of three years, representing the New York State Grange. In the place of J. C. Griffiths of Salamanca, Henry Burden of Cazenovia was elected to represent the Dairymen's League, and Harry L. Brown of Waterport, representing the New York State Farm Bureau Federation, was elected to succeed himself.

Following the election of the directors, the general meeting adjourned and the new Board convened, electing the following officers for the ensuing year: President, N. F. Webb, Cortland; Vice-president, Harry L. Brown, Waterport; secretary and treasurer, Raymond C. Hitchings, Syracuse.

In the evening, the general meeting was again brought to order by President Webb calling attention to the fact that shareholders and farmers throughout the territory should become better acquainted with the men they had employed to serve them. In view of this fact, President Webb stated, it was a pleasure to announce that the complete staff of commodity department heads was present, and that he hoped the discussion relative to the service which the Exchange could render would be beneficial when talked over with the men in charge.

An Oft Debated Subject

(*Continued from page* 138)

would earn more in pile to be applied later than in the ground, for the soil moisture that should go to sustain the plants will be taken up by the manure. Of course only in exceptional cases does this last statement prove true, but when it does the loss is generally 100 per cent.

When I Apply It

I would never apply strawy manure previous to seeding time; when applied in late winter the spring rains and weathering will make it ordinarily pretty safe. We have one stable where shavings are used for bedding. I find less danger in using this manure late in the spring.

As a guess, I should say that sheep manure with a normal amount of bedding and for the crops you mention, could be used in quantity about 40 per cent of cow manure and would be more effective if well rotted before using.

If our friend has had experience with manures, he can I hope, read these generalities and analyse them to his good, but if not, I would fear for the results. There are so many factors—weather, manure itself, soil conditions and kind of plant that enter into a discussion of this sort, that one must have had a good deal of experience in order to make a safe interpretation, and then a year will come along and upset the supposed knowledge of a veteran and make him a child again.

Shall We Urge Our Boys To Be Farmers?

(*Continued from page* 134)

In 1909 he started a four year rotation. In accordance with his livestock program, he has fed a car load or thereabouts of fat cattle each winter, consequently there has been plenty of manure available. Instead of using two hundred bushels of lime when the ground showed definite lime sickness, he now uses seven-hundred pounds per acre regularly with a spreader. All the information regarding agriculture has, however, not come from lectures and observation. The reading table in the Burket home provides the most approved material to be found in the farm papers, dailies, magazines and books. They are all read too.

Speaking of the home part of the farm, there are no city homes that provide more comfort and cheer than than that of the fine old brick house on the Burket farm. A hot-water furnace and bath room were installed in 1914. Hot and cold water are, of course, in use all through the house. Electric light was installed in 1919. The large lawn makes the stranger who passes by wonder who lives there and makes him wish he were well enough acquainted to stop and call. Should he be bold enough to do so, he would receive a hearty welcome, for John Burket has not only made a success of farming on that one time poor limestone farm, but he is a friend of man.—BRUCE DUNLAP, Pennsylvania.

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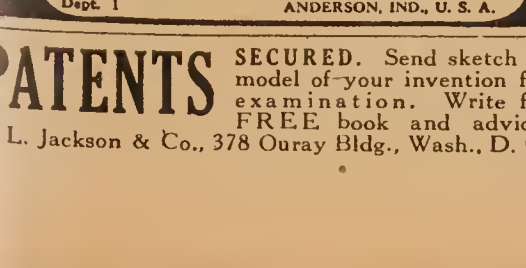

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Jersey Fruit Men Active

Making Plans to Market 1923 Peach Crop

THE Jersey Fruit Growers' Coöperative Association has plans well under way for marketing its 1923 peach crop, according to the discussion at the enthusiastic annual meeting of the coöperative at Camden, N. J., on February 2. During the 1922 shipping season the association handled nearly 115,000 bushels of peaches for its members and from that experience the coöperative is laying its plans to handle effectively an even larger production this coming year. The principal feature in the tentative plans, outlined by James E. Klahre, manager of the association, is a separate marketing policy on peaches sold by the car, from those sold in broken lots or by the motor-truck load.

It was pointed out that a highly specialized sales agency with sales contracts in markets throughout the country could very profitably handle the peaches to be sold in carlots. This plan would make available the sales force of the association for intensive work in the distribution of peaches to markets in northern New Jersey, New York and eastern Pennsylvania. The marketing policy for 1923 will shortly come up for final action by the Executive Committee, after which plans will go forward intensively.

The federation of fruit coöperatives now comprises six local units, namely: The Vineland Coöperative Association of Cumberland County, the Holly Trust Growers' and Coöperative Packing Association, the Camden Fruit Growers' Coöperative Association, the Moorestown Fruit Growers' Coöperative Association, the Riverton Fruit Growers' Coöperative and the Burlington Fruit Growers' Coöperative Association. As pointed out at the meeting, the efforts of the organization this last season helped to stabilize prices on peaches in the Philadelphia market and through such efforts proved a valuable asset for the general fruit industry of New Jersey.

The officers of the Association for the coming year are: Joseph Barton, Marlton, President; C. B. Lewis, Riverton, Vice-president; Dr. Frank App, Bridgeton, Secretary-treasurer. These three, together with Bertram Gillette of Vineland, George Reid of Mount Holly and Byron Roberts of Moorestown comprise the Executive Committee. In addition to the members of the Executive Committee, the following make up the Board of Directors: Henry Albertson of Burlington, Arthur L. Ritchie of Riverton, C. L. Andrews of Morestown and H. H. Bell of Mt. Ephraim.

Pruning Demonstration Draws Crowds

Monmouth County Agent, Ellwood Douglass, held one of the largest pruning demonstrations in New Jersey on February 2 on the farms of W. B. Conover at Middleton and John Tansey at Matawan. Over 80 people turned out in response to his invitation to get the latest information on pruning practices. The gathering was said by A. F. Mason, Extension Specialist in Horticulture at the New Jersey State College, to be next to the largest attendance at any pruning demonstration in the State.

County Agent Douglass and Specialist Mason brought out the three generally used types of pruning—the open head, the modified central leader and the central leader—and showed on just which varieties and under which conditions each of these was best. One of the main points emphasized was that the pruner should leave as many low branches on a tree as possible to aid in spraying and picking, and to give the most first-class fruit. In this connection the growers were told that there is not much ground for the belief among some fruit men that they must have a high tree in order to get necessary cultivation, for with modern orchard machinery a grower can get as close to the trunk as is desirable.

Caution was emphasized against excess cutting of the fruit spurs and small branches on which the crop is borne; also the tendency among some men to leave insufficient air and sunlight space around the fruiting limbs because of the fear that they will cut out too much. The constant stream of questions fired at the County Agent and Fruit Specialist indicated that this type of demonstration, which has been more widely held than any other except the culling demonstration, is still popular with the central New Jersey fruit growers.

Tomato Men Perfecting Organization

Answering a call of the Burlington County Tomato Growers' Association, representatives of the tomato-growing counties in southern and central New Jersey recently met at Mount Holly, N. J., to discuss plans for the formation of a permanent marketing organization. The formation of a coöperative tomato marketing association has been under discussion for some time, such counties as Burlington, Cumberland, Salem, Gloucester, Camden and Mercer being interested. The Executive Committee named below, one from each county in the order just listed, was elected to comprise a group which would work in conjunction with the State Federation of County Boards of Agriculture regarding details and expenses of forming a permanent organization. This committee is composed of Charles A. Collins of Moorestown, Leslie Platts of Bridgeton, H. N. Fogg of Hancock's Bridge, J. B. Stratten of Mt. Royal, Frank W. Shivers of Merchantville and A. E. Young of Trenton. Dr. Frank App of Bridgeton will serve as secretary of the above committee.

Looking ahead to the coming season considerable discussion centered at the meeting around the possibility of raising the price of canhouse tomatoes this year. It was the sense of the meeting that an effective marketing organization could not be completed in time to function in this regard for the 1923 crop.

Egg Cooperative Shows Results

According to a careful survey of comparative prices on Pacific Coast eggs and those from New Jersey and other nearby points, Herman B. Walker, manager of the Atlantic Coast Poultry Producers' Association, finds that New Jersey eggs in 1922 commanded a premium over Western offerings on the New York market. His investigations show that in 1921 the prestige of nearby eggs over those from the Pacific Coast was to the tune of 0.3 cents per dozen, while the difference of New Jersey eggs over Pacific Coast in that year was nil. During 1922, however, the favor of nearby eggs gave them an advantage of 2.4 cents per dozen, while New Jersey white eggs as marketed through the association sold at a premium of 6.7 cents per dozen. These were the comparative average top quotations for Pacific Coast, New Jersey and other nearby white extras.

When the Association established its own salesroom and offices in New York City last June, it discontinued its previous policy of grading and candling all the eggs of members in local packing houses. When the work first started, four and five grades of white eggs were packed, and all of the cases were new cottonwood cases, with new white fillers and flats. During the last half of 1922 and up to the present time, the candling of eggs has been discontinued except for the retail trade willing to pay a premium for candled eggs. The number of grades was cut down to three during the fall and two during the rest of the year. The expensive new cases and white fillers were discontinued and two of the three local packing houses were closed except the one at Toms River, N. J., which was retained as a receiving station only, except during the summer-resort season. With simple rules for grading and packing and with attention to grading of eggs on the part of members, the packing department in New York City is mainly for inspection of eggs on arrival. These changes in policy have enhanced the efforts of the association and made possible the operation of the association at less cost to members.

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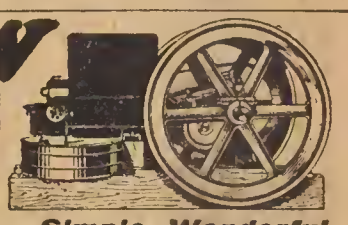

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Grade roads, build dykes, levees with The Martin Farm Ditcher and Grader
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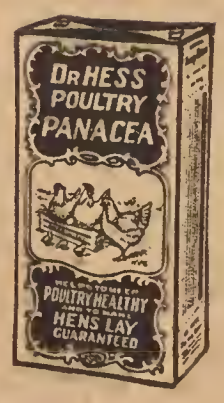

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PAN-A-CE-A

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M.D., D.V.S.

Then you get chicks that are strong and livable.

Chicks that can resist the attacks of disease—the little-chick ailments.

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100 hens, the 12-lb. pkg. 200 hens, the 25-lb. pail
60 hens, the 5-lb. pkg. 500 hens, the 100-lb. drum
For fewer hens, there is a smaller package.
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DR. HESS & CLARK Ashland, O.

Dr. Hess Instant Louse Killer Kills Lice

STANDARDIZED DIP **MEPH** DIP DISINFECTANT

KILLS LICE

ordinary Mites, Sheep Ticks, Fleas; drives away Flies and Mosquitos.

MEPH is used for treatment of ordinary Mange, Scab, Ringworm and many other skin diseases.

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MEPH disinfects, cleanses and deodorizes.

Satisfaction Guaranteed or Money Back

If your dealer can't supply you write and we will send you a gallon, charges prepaid, for $2.50. 1 gallon makes from 50-100 gallons of a satisfactory dilution. ***Order Now.***

MEPH CO., 160 South St., New York, N. Y.

My Engine Will Do the Work of 6

Write now for facts about this wonder engine. Same engine gives 1½ to 6 H. P. Gasoline or kerosene, portable, light and free from vibration. No cranking. Pumps, saws, grinds and does all chores. Plenty of power for every purpose. Easy to operate.

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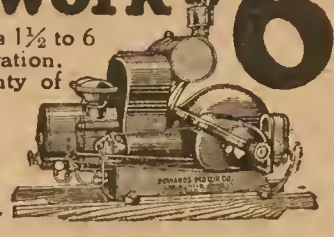

Shall I Buy or Hatch?

What Baby Chick Experiences Have Taught Us

By W. E. FARVER

It is only a few years since we knew practically nothing of the baby chick industry. It was comparatively slow in starting. But when it did start, it grew by leaps and bounds and has not ceased growing, or even slackened its pace. There will be new hatcheries each year, and each year some will pass out of existence. What has been true of other industries is true of the baby chick industry. Auto factories, radio companies, baby chick hatcheries sprang up like mushrooms after a warm rain. Many factors enter into the cause of hatcheries ceasing business operation, but there are standard hatcheries to-day just as there are standard companies manufacturing plows, separators and typewriters.

A Great Convenience

We find many advising the use of hens as means of incubation rather than purchasing chicks. Each one should exercise good, sound judgment when deciding, but it surely is an advantage to get a bunch of husky chicks from a reliable firm and start them on a brooder, over and above the trouble occasioned by fussing with a lot of troublesome hens. I tried it and found the chicks from the hatchery far more convenient.

An additional bunch of chicks may be obtained from the hatchery to swell the number when the incubator batch comes off. As a rule, when a 50 per cent hatch is obtained, it is considered pretty good. An incubator holding 250 eggs, after testing out infertile eggs and counting those not hatching, rarely brings over 150 chicks. Usually the brooder capacity of a small poultry business can handle more birds than this.

Here the hatchery chicks come in handy, for an order may arrive the day the hatch comes off. If you like to use hens or an incubator, use them, by all means. It is a grand thing that we have a right to do as we please in such matters, but if you like to raise chicks and detest the hatching part of it, then thank Providence that the baby chick industry has come to stay.

Some Personal Experiences Years Ago

The first experience we had with the purchase of baby chicks was some years ago, when we purchased a hundred R. I. Red baby chicks. We raised them with pretty fair success. They were, to be sure, pure-bred R. I. Reds, although we never knew from what flock the eggs came. We always doubted seriously the pure-bred part, for they did not show it very strongly.

Following the R. I. Red experience, we obtained a start with Anconas. From a near-by breeder we obtained eggs from his pure-bred flock of Anconas. These were set under hens, hatching out about 175 chicks. Of these we raised about 155, losing some by accident, but none through disease. This man's flock was free of disease. We needed more chicks to grow the desired number of pullets, and could not depend on hens to hatch them, having no incubator at that time. So we ordered 200 Ancona chicks from a reliable firm. They treated us squarely, although we lost out to a certain extent.

Immediately after arrival the chicks began dying and continued till less than a hundred remained. Three other parties living near us purchased chicks from the same hatchery, and had experience identical with ours. We hardly knew what course to pursue, so we enlisted the aid of our county agent. He was not certain whether it was bacillary white diarrhœa, or not, but expressed the opinion that the chicks lingered longer than if it were the diarrhœa. He advised a post-mortem examination to determine the nature of the disease.

Several afflicted chicks were shipped to the State College. The report read "coccidiosis," a bowel disease of poultry. We never had any of this trouble before, nor did the chicks hatched from the eggs obtained from our neighbor-breeder. This pretty well convinced us that the chicks received from the hatchery brought it along. We had the same trouble later on when using the eggs from these fowls for hatching. The other three parties who bought chicks from the same place, and all Anconas, too, had the same disease in their chicks, and with disastrous experience, too. This has firmly convinced us that the flock of Anconas laying the eggs used by the hatchery to produce these chicks was infected with coccidiosis.

Authorities at Columbus advised us that mature fowls may have this disease, disseminating it in the droppings, and yet not showing any evil effects therefrom. Also, that the germ may be on the shell, and the chicks pecking at the shells may contract it before they leave the incubator. Some of our chicks have shown symptoms of it before we took them out of the incubator.

It appears to us that a law requiring examination and testing, or licensing the certification of flocks from which eggs are used by hatcheries or otherwise sold for hatching purposes. This would avoid much needless distribution of disease, I believe. It is possible to detect bacillary white diarrhœa in old stock by making tests. Enforced tests of this kind is the only way in which bacillary white diarrhœa will ever be eradicated. Like tests and examinations would help much in other diseases.

Where One Fault Lies

A practice of some proprietors of hatcheries is to go out and buy eggs from any one who happens to have a flock that looks like good stock regardless of what the condition or breeding is. Before me is the following advertisement: "WANTED.....The..... ....Hatchery pays a premium for eggs from all varieties of unmixed flocks. Send name and address....." Is there any likelihood that any stock of high-grade qualities will be secured at this hatchery? Another incident that happened here not long ago was this: An Ancona breeder living near by was approached by the proprietor of a hatchery for Ancona eggs for hatching. The breeder had not yet made up his breeding pens and had a few Brown Leghorns in the flock. He explained this to the hatchery proprietor, but stated he would remove the Leghorns. The proprietor replied, "Oh, that don't matter." Had this Ancona breeder been as careless and dishonest as the hatchery proprietor apparently was, the purchasers of those baby chicks would have suffered.

There is a class of poultry keepers who are not particular whether chicks are pure bred or not. To these the careless and dishonest hatchery proprietor works little harm, but he may

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BARRED and WHITE ROCKS, REDS ANCONAS, MINORCAS, 50, $8; 100; $15; 500, $72.50. BUFF ORPINGTONS and WHITE WYANDOTTES, 50, $8.50; 100 $16; 500, $77.50. WHITE and BROWN LEGHORNS, 50, $6.50; 100, $12; 500, $60. Postpaid and full live delivery guaranteed. Bank Reference. Order NOW direct from this ad and get them when you want them. Free circular. **NORWALK CHICK HATCHERY.** Box B6, Norwalk, Ohio. Only 15 hours from New York City.

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You can double your profits with our famous RURAL Strain PURE BRED S. C. English Strain White Leghorns, Brown Leghorns and Anconas. They have years of constant breeding for high flock averages back of them. We operate a modern hatchery and 70-acre poultry farm and can save you considerable money, quality considered. Our poultry is scientifically culled and is all on free range which assures you the desirable sturdy, lively chicks which mature more rapidly with decreased mortality and develop in 4 to 5 months into the greatest layers. We guarantee 100% live arrival of healthy, vigorous chicks. If you are interested in securing a flock that will give you a splendid dividend on your investment, write at once. Beautiful catalog free. **RURAL POULTRY FARM, Dept. B. R. No. 1, ZEELAND, MICHIGAN.**

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We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

E. P. GRAY, Box 90, Savona, N. Y.

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S. C. W. Leghorns, S. C. Black Leghorns, Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

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Box A SERGEANTSVILLE, N. J.

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This is approximately what Zeeland Poultry Breeders will produce this year. Our catalog tells about Zeeland's large chick industry; also our stock and prices. Chicks 10 cents up. Write

ZEELAND POULTRY FARMS, ZEELAND, MICH.

REGISTERED AND CERTIFIED LEGHORN CHICKS

A few April Registered and General Mating Chicks left. Reduced prices for May and June deliveries. Get descriptive catalog of prices, etc.

E. J. WADE, 1558 Lake St., Elmira, N. Y., Dept. C

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CHICKS PEDIGREED, EXHIBITION & SELECT GRADES, from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.

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BABY CHICKS Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 18c. each; White Wyandottes, 22c. each; White, Brown, Buff Leghorns, 15c. each; broilers, 10c. each. Pekin Ducklings, 32c. each. Safe delivery guaranteed by prepaid parcel post

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DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.

WAYNE DUCK FARM & HATCHERY, Clyde, N. Y.

BABY CHICKS S. C. White Leghorns a specialty. Drop a card for my circular and prices. H. FISHER, Milford, N. J.

CHICKS Low prices. S. C. Eng. White and Brown Leghorns, Anconas, Barred Rocks. Catalog free. 100% live delivery. BOS HATCHERY, Zeeland, Michigan, R. 2.

ANCONAS Cockerels, $3.00 each; two for $5.00. Pullets, $3.00 each; nice ones. Order soon or write. G. S. HALL, Farmdale, Ohio

CHICKS of superior quality. From selected, heavy laying Leghorns. Circular free. S. BRUNDAGE Salisbury Mills, N. Y.

CHICKS 11c and up. Reds, Wyandottes, Rocks, Leghorns and mixed. Bank reference. Send for circular. The Richfield Hatchery, G. H. Ehrenzeller, Richfield, Pa.

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TOM BARRON PEDIGREE STRAIN

S. C. White Leghorns exclusively. Extra fine April Chicks, $20 per hundred; May, $18; June, $15. Free delivery and satisfaction guaranteed.

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LARGE STOCK Fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Pigeons, Dogs, Stock, Eggs low. Catalog. PIONEER FARMS. Telford, Pa.

SPECIAL PRICES ON TURKEYS, DUCKS, GEESE, CHICKENS, GUINEAS, HARES AND DOGS. Catalog free, H. H. FREED, Telford, Pa.

...e approached for pure-bred chicks by parties who do care whether chicks are pure-bred or mongrel stock. These the dishonest proprietor catches and they are thrown back at least a year in their poultry improvement efforts.

Where I Would Do Business

In many States there are hatcheries of high reputation and standing whose breeding pens are well selected and conducted in cooperation with the State Experiment Stations. Of course there are many other hatcheries which are perfectly reliable and where we may obtain stock of the very best kind. The point which should not be passed over lightly, is that the hatcheries whose breeding pens are conducted in cooperation with the experiment stations are to be depended upon for supplying chicks that are what they are recommended to be.

These hatcheries and all others that maintain special breeding pens of high quality are reliable. So far as the business dealings of others is concerned I do not question their reliability. However, I do seriously question the practice of picking up eggs here, there and everywhere just to fill the incubators. This and the looseness in scattering poultry diseases, should cease. We have had a number of chances this year of selling our eggs to hatcheries this season, but owing to the fact that we have had trouble with coccidiosis we decided to not do so unless we can once rid our flock of this trouble, or build up another that is free of it.

The Kind to Beware Of

It may not be out of place to say that we should be very cautious about ordering chicks from fly-by-night concerns. The case of the notorious King Hatchery of Cleveland last year is still fresh in our minds and need not be reviewed here, except to mention that if we had the money that the King Hatchery obtained from our county we could purchase a poultry farm of good size and make a mighty fine down payment, if not pay for the entire farm. So as a closing remark, permit us to say that it will pay you to do a little research work before you order chicks. Learn from those who have had successful dealings with reliable hatcheries what their experience has been. Or have your county agent inquire from your State experiment station concerning reliable hatcheries. There are many of them all over the country. It surely pays to "look before you leap" when contemplating the purchase of baby chicks.

With New York Farmers

(*Continued from page* 141)

in storage along the Ontario division of the New York Central have been lost because of a shortage of refrigerator cars. Many have estimated the shortage as high as 250 to 300 cars. Growers have for some time in the past experienced more difficulty in getting cars on the New York Central lines than on the Pennsylvania system. Partly to obviate this, a large cold storage was built at Wallington on the Pennsylvania road last year, and before the plant was fully completed all space had been contracted for, so great is the call for storage facilities on the Pennsylvania system.

The new officers of the New York Canning Crops Cooperative Association are as follows: President, C. A. Rogers, Bergen; Vice-president, Frank Brophel, Geneseo; Secretary and General Manager, Thomas Wright, Webster; Treasurer, John H. Morgan, Greece; new members of the Executive Committee: John Morgan, Greece; George Rowe, Knowlesville; George Burrill, Holcomb, and H. E. Whitmore, Avon.

Williamson Growers Reestablish Fellowship

For several years the Williamson Vegetable Growers' Association employed a graduate student of Cornell University for the study of some of the disease problems arising on their muckland crops. Last year question arose in the minds of some as to whether the undertaking was worth the cost or not. It was accordingly dropped. At a recent meeting the growers decided unanimously to re-establish the fellowship. They found that a man well trained in disease control was able to help them greatly by timely suggestion and demonstration.

GLF Quality POULTRY RATIONS

Known Ingredients of Known Quality in Known Proportions

THE rations are mixed according to formulas approved by the poultry feeding specialists at the colleges of agriculture in the territory served by the G. L. F. Study the formulas and you will find—

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2. The quality of the ingredients and the pounds of each ingredient used are stated.
3. Each ration is high in digestible nutrients and the fiber content is low.
4. Dried milks are used and the animal proteins are high.

Feed G. L. F. Rations and you will know just what your birds are eating

G. L. F. Laying Mash

20 Protein 5.5 Fat 6 Fiber

400 lbs.	Wheat Bran
200 "	Flour Midds
200 "	Standard Midds
250 "	Corn Meal
230 "	Hominy (white)
300 "	Oats Gr. No. 2 white, 40 lbs.
250 "	Meat Scrap 50-55%
150 "	Dried Buttermilk
20 "	Salt
2000 lbs.	

1389.60 lbs. Digestible Nutrients

G. L. F. Growing Mash

19.75 Protein 5.25 Fat 5 Fiber

550 lbs.	Wheat Bran
300 "	Flour Middlings
350 "	Corn Meal
290 "	Hominy (white)
150 "	Meat Scraps (fine)
150 "	Dried Milk
100 "	Dried Buttermilk
100 "	Bone Meal
10 "	Salt
2000 lbs.	

1405.17 lbs. Digestible Nutrients

G. L. F. Coarse Scratch Grains

11.25% Protein—3.25% Fat—4% Fiber

700 lbs.	Corn, Coarse Cracked
600 "	Wheat
300 "	Barley
200 "	Oats, No. 2 White Clipped, 40 lbs.
100 "	Milo and White Kaffir
100 "	Buckwheat
2000 lbs.	

1405.30 lbs. Digestible Nutrients

G. L. F. Chick Scratch Grains

11% Protein—3.75% Fat—3% Fiber

1000 lbs.	Fine Cracked Corn (Kiln Dried)
600 "	Cracked Wheat
200 "	Cracked Milo Maize
200 "	Steel Cut Oats
2000 lbs.	

1617.40 lbs. Digestible Nutrients

G. L. F. Fattening Mash

12.5% Protein—4.75% Fat—4% Fiber

1200 lbs.	Corn Meal
600 "	Flour Middlings
200 "	Oats Clipped Re-Gr., 40 lbs.
2000 lbs.	

1520.6 lbs. Digestible Nutrients

G. L. F. Intermediate Scratch Grains

11% Protein—3.75% Fat—3.5% Fiber

1000 lbs.	Medium Cracked Corn
600 "	Wheat
200 "	Milo Maize
200 "	Oats, No. 2 White Clipped, 40 lbs.
2000 lbs.	

1550.60 lbs. Digestible Nutrients

Your local G. L. F. agent will take care of your requirements, or if there is no local agent in your community, write

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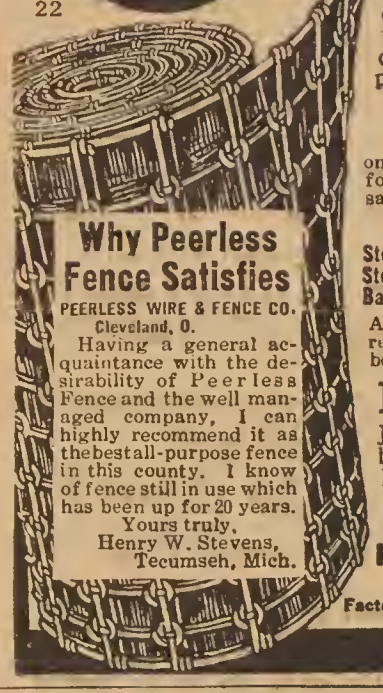

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Steel Farm Gates, each	$3.65	Lawn Fence, per ft.	7cts
Steel Posts, each	22cts	Paint, per gallon	$1.19
Barb Wire, 80 rod spool	$2.47	Roofing, 100 sq. feet, roll	$1.25

And so on, throughout this great money saving book, our prices will be a revelation to you. The same, old time, high quality—the prices cut to rock bottom through our change in selling direct from factory to you.

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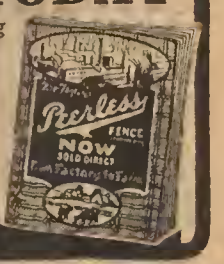
Just drop us a post card for this big money-saving book. See for yourself the money you can save. Everything you buy is backed by a "money-back" guarantee. You take no risk. Write for catalog today.



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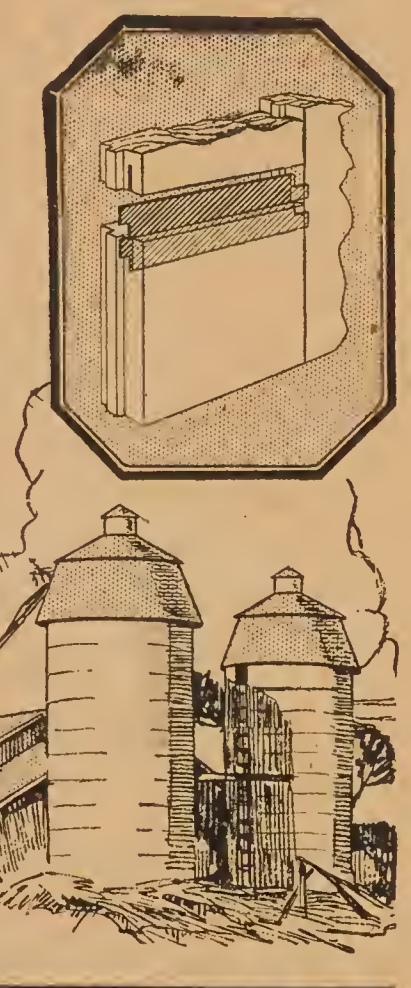

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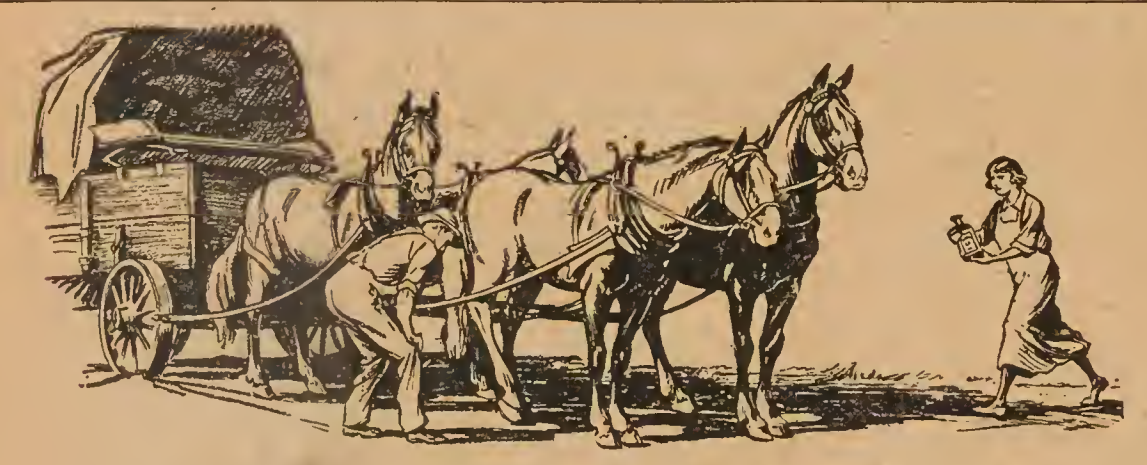

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Name ..... Address .....

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Shall I Test?

TB Eradication From a Cattle Owner's Viewpoint

By H. E. BABCOCK

I WELL remember the first time that I personally realized that there was a tuberculosis question. I had bought three Guernsey two-year-olds for $600—mostly borrowed money—and in my greenness and excitement I had forgotten to require that they be tuberculin tested. They were well bought and soon there came an offer of $900 for the three, with the stipulation that they first pass the tuberculin test.

I accepted the offer at chore time one night, and went to bed a happy boy to awaken along in the midnight hours with the terrible thought that perhaps my heifers would react. All night long I wrestled with that fear; a half dozen times I decided that I would never take the chance, only to whip myself into line again.

The next day the veterinarian came. I did not let him out of my sight for a minute. I slept with him on a pile of hay in the barn. I held the lantern for the readings. When the final temperature was recorded I was a nervous and physical wreck—but I had acquired a point of view toward the tuberculin test which has never left me. It is the point of view of the man whose business is threatened; who awakens in the dead of night to toss and sweat over the problem of what to do with his herd. If, therefore, I seem careless of the plans of governments and make light of statistics and the like, I hope it will not be misunderstood. I am looking at the problem from the angle of the man who owns the cattle.

Shall I Test?

As a cattle owner living in New York State this winter of 1923 I am face to face, if I have not already decided the question, with the problem: Shall I, or shall I not submit my herd to the tuberculin test? Probably my thoughts will be colored by the conditions under which I farm. If I am the owner of purebred cattle I am constantly up against the demand for tuberculin tested animals. I cannot ship my animals outside of the State unless they are tuberculin tested, nor can I put them in any of the better public sales. In fact, unless I am willing to test, my purebred market is practically destroyed. On the other hand, if I am the owner of a grade herd, the tuberculin test has as yet made but little impression on the price of my cattle.

It happens that since I tested those three Guernsey heifers—by the way, they did not react—I have acquired the management of several farms and in the course of operating these farms I have tested over six hundred head of cattle. As these farms stand to-day they are typical of several conditions that dairy cattle owners face, and I shall therefore answer the T. B. test question as I have answered it in the management of these farms.

The Case of the Purebred Farm

On two farms we have purebred cattle. There seems to be but one answer to the test question on these farms. Yes, we shall test. Unless animals have passed a clean test they cannot be shipped into other States. Our best purebred markets are outside the State. All reliable public sales require a tested animal, and some guarantee of 60-day retest; another reason for testing. Finally, so many purebred owners are striving for clean herds there is little hope of selling untested purebreds even at private treaty.

It is of little use to breed purebred animals for milk alone, so under present conditions I believe that any purebred owner must test his herd or go out of business. We have tested our purebreds. We found reactors. We now have clean herds. The testing cost us two years breeding progress and lost us some money, but we are glad we did it. *It will pay in the long run!*

Not Practical to Test All Grade Herds

On farms with grade herds T. B. testing has not been practical in all cases. It is not with us.

One farm is located in a valley where, it is safe to say, 50 per cent of the cattle are tubercular. To test that herd would mean to lose it, and the income from it. Indemnities are too low and too slow to use in buying replacements. Furthermore, where could we go to buy clean replacements?

What is more discouraging than to spend years, perhaps a life time, building up a fine herd, only to find that they all react?

There are hundreds of dairymen in like situations. The milk from their farms is pasteurized. There is but little menace to the health of any except the young members of the farm family. A private test of one or two cows safeguards that. These badly infected herds of grade cattle should be left to the last; until there are plenty of clean replacements available and until the whole area can be cleaned up at once. *It does not pay to test them now.*

Another of our farms, stocked with grade cattle, is located in one of those rare sections where the T. B. test is required by the milk market. Here, of course, we test. We get more for our milk. *It pays.*

On still another farm we have no dairy. We just keep a few so-called cows to eat up the roughage and make a little manure. Here we have not tested. I do not see why we should ever do so. There are hundreds of farms like this one.

Test When It Pays

Summarizing then, our experience in farm management has taught us to tuberculin test cows when it pays to do so. With purebred cattle it pays; when special milk markets are available it pays; when we raise grades for sale it may pay. In the operation of an ordinary grade herd, however, it does not yet pay to test and it is likely to be years before it will. In fact, testing is a real handicap.

So much for our own point of view. We have looked at the question in the light of practical experience. It is only fair that the varying conditions of cattle owners be considered when plans for bovine tuberculosis eradication are made. I intend to keep them to the fore in this series. The next article will deal with the fundamentals of the accredited herd plan as learned by experience with it.

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To Withdraw or Not?

UNDER the terms of the contract between dairy farmers and the Dairymen's League Association, Inc., this month of February is the time when farmers may, after observing certain regulations, withdraw from the organization. Some will do this. I am one of those who will not, and I stand ready to give a reason why I shall not.

Memory fails me about some things, but it is not so short that I have forgotten some things that took place before we had any League to stand for us in the matter of selling our milk. Then we had to take anything that was offered us for our milk—we had no voice in the matter at all. If we preferred to take our milk out and care for it ourselves, we could do so. I did that one year. I made some good butter, but the local market was overstocked. I sent three tubs to New York to be sold on commission, and I got back less than one dollar for three tubs, 69 cents, to be exact, as my memory serves me. The man I sent to was pronounced a bankrupt. My experience with the old way of individual selling was the same as that of all my neighbors. We could take the price offered, or do the other thing.

It is because I remember these things, and because I am just as sure as that I live that if the Dairymen's League Cooperative Association should by any manner of means stop doing business, we would be right back where we were in those old days, that I shall not withdraw from the organization, and I should be very sorry to see any of my neighbors do so. If the Cooperative is undermined by those who have been benefited by it and whose only salvation it is from loss and perhaps ruin, if we do not stand by it now we will be the most ungrateful of all men. Not only so, we will be untrue to our own best interests, false to the homes we love so well and really financial suicides. So I am going to stick, and stick hard. I see no better thing to do. —E. L. V.

H. D. (DAN) WARNER PASSES AWAY

On January 29 occurred the death of Mr. H. D. Warner of Pawling, N. Y., at the age of 64 years. Mr. Warner had been in ill health for nearly a year and the end was not unexpected.

Level-headed, conservative, a man of excellent judgment and broad vision, Dan Warner has exerted a positive influence for the betterment of the Holstein-Friesian breed. For nearly forty years, and up to the time of his death, he was manager of the Dutcher Estate, Maplecroft Farms, Pawling, N. Y. Under his care were developed Pauline Paul, with her authenticated butter record of 1,153 lbs. 15¾ oz. in a year, the first cow of any breed to approach this figure, and De Kol 2d, with her 33-lb. authenticated four-year-old record, the world's record for age at that time. Under Mr. Warner's care, De Kol 2d produced the first seven of her twelve calves. These were De Kol 2d's Paul De Kol, De Kol 2d's Netherland, De Kol 2d's Alban, and De Kol 2d's Prince, and the three daughters, De Kol 2d's Queen, Netherland De Kol and Mildred De Kol. A mere recital of the names of these animals, particularly the four sons, is sufficient to establish the fact of his skill as a breeder.

When a man like Dan Warner passes on, his taking away is not alone felt by his relatives and close friends, but the whole community suffers an irreparable loss. Always interested in the community in which he had lived for nearly forty years, Mr. Warner never failed to help whenever possible. Throughout the whole southeastern section of the State, his friendly assistance was an inspiration to everyone with whom he came in contact. No show, or fair, or even meeting where Holsteins were discussed was held in eastern New York that his counsel was not sought and as willingly given. A priceless heritage he leaves in the memories his family and friends will forever cherish. He is survived by his wife, three daughters, and one son, also by two sisters, and his father, now in his ninety-third year.

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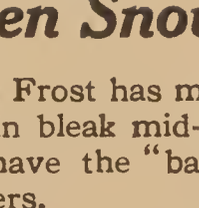

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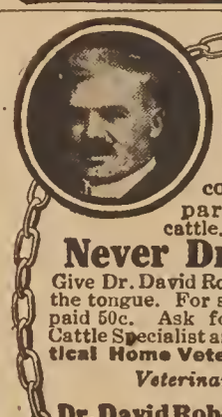

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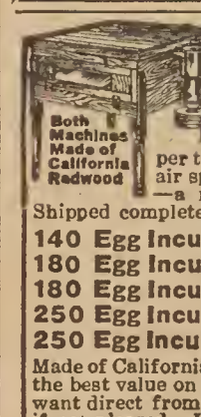

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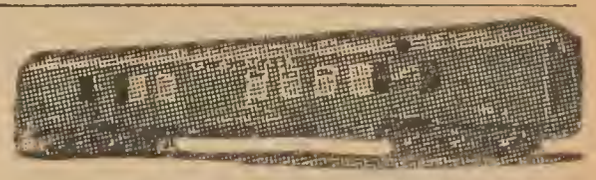

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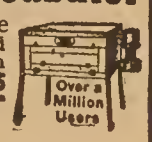

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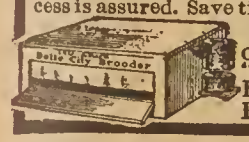

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Don't Buy "Wildcats"

Can You Afford to Speculate?

EVERY week brings dozens of letters to American Agriculturist asking advice relative to investments. Apparently there are as many wildcat schemes being floated as ever. Farmers cannot afford to take these risks. H. E. Cook recently made the remark that if you have money to invest, why not invest it in your own business—a good idea.

But many wish to have securities to fall back on in later life. If you wish to invest—then invest, do not speculate. Good securities do not pay excessive dividends. You never could and never will get "something for nothing."

CHARGE TO PROFIT AND LOSS

Financial Department:—About two years ago I bought 100 shares in the Union Oil of Texas. A year later they wanted me to transfer it into the Rose Oil Company, which I did by sending my certificate and $.50. Now they want me to transfer it into the Petroleum Producers Association (sending 25 per cent of the face value of my holdings). This company claims they are on a paying dividend basis. If I do not accept this they say that my certificate in the Rose Oil Company is worthless.—R. E. C., New York.

You might as well consider your Rose Oil worthless. Certainly it won't do you any good to send more money to put into the Petroleum Producers Association. The head of that association is the same Dr. Cook that created such a stir some years ago by announcing he had discovered the North Pole. As a matter of fact we have more faith in his Arctic adventures than in his oil enterprise.

* * *

Financial Department:—In 1920 I bought 100 shares of stock in Texas United Oil. In 1921 I was informed that the company had failed, but a banking company in Philadelphia gave notice that they were taking over the company and were going to try to put it on its feet, as it had failed on account of the rascality of its president. An assessment was made of 8 cents per share which amount I paid. I have never heard anything more of it since, also I have lost the name of the banking company. Can you find out anything about this matter?—E. H. G., Pennsylvania.

We fear you will have to charge the money you put into this proposition to profit and loss. The stock is offered at 10 cents a share, but no one is ready to buy it at any price. Some day farmers will learn to leave oil stock alone.

INVEST—DON'T SPECULATE

Financial Department:—What is your opinion on the Greenwich Service Corporation (circular attached) 358 Fifth Avenue, New York City, in a general way as to their reliability to be entrusted with handling of one's money along the lines they are suggesting and their particular offer of Atlantic Fruit?—C. D. P., New York.

Our earnest advice is to have nothing to do with this proposition. If you want to speculate and have money to lose, you can buy Atlantic Fruit bonds for yourself. We advise you not to, but you, of course, can take a chance with your own money if you see fit. Incidentally in December the bond the Greenwich Service Corporation has offered to sell you for $360 sold on the Stock Exchange for $280. Of course, it is perfectly possible that the price will go higher than $360, and so you will make a profit and it is also perfectly possible the price will go lower than $360, and then you will have a loss. There is no crime in speculation if you are perfectly able to lose, and if when you have lost what seems sufficient to you, you will stop. That is all there is to it. But in any case speculate for yourself and not through any service corporation, if speculate you must.

GOOD INVESTMENTS FOR FARMERS

Financial Department:—Can you advise me as to some good and safe investments that you think are perfectly safe, paying a rate of interest not less than 5 per cent, such as public utilities or something that pays dividends semi-annually, quarterly or yearly?—J. P. M., Delaware.

There are many good sound investments paying 5 per cent or better. Such a preferred stock as American Bank Note, which is of $50 par and pays $3 a year in dividends and sells for about 55 to yield 5½ per cent is an example. We think you would be entirely safe in buying this stock which is listed on the New York Stock Exchange. Another high-grade investment, in our opinion, is Jones & Laughlin Steel preferred, which pays $7 annually and sells for about 109 and yields 6.4 per cent. This also is listed on the Exchange and so has a good market.

* * *

Financial Department:—What can you tell me about investing money from $10,000 to $20,000 in tax free investments. I know of the Government bond and war saving stamps and war bonds, but is there any that is safe and pays 4½ or 5 per cent?—F. W. L., New York.

Why do you want tax free securities? Unless you are subject to high surtaxes there is no object in buying tax exempt bonds. Probably the best, if you insist on having that class, are the bonds of the Federal Land Banks which yield 4½ to 4¾ per cent.

* * *

Financial Department:—I am a farmer in the coal, oil and gas belt of W. Va. There are wonderful opportunities offered here on paper, for investors, but I am on the ground and want none of them. I want first mortgage real estate paper, preferably on farms, but securities of this kind are scarce here. As I cannot be there to look after the business myself, what I want is a safe conservative Gilt-Edged Real Estate broker to look after this for me. Who is he and what is his address? What do you think of Perkins & Co., Real Estate Brokers of Lawrence, Kansas?—J. B. S., West Virginia.

The best investment for you are the Federal Land Bank bonds. These are secured by first mortgage on farm property and the Federal Land Banks answer to your description of a safe, conservative, gilt-edged investment.

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Financial Department:—Can you give me any information concerning the Calvert Mortgage Company, Baltimore, issuing 2 year 6 per cent certificates?—C. W., New York.

We think these certificates are good investments.

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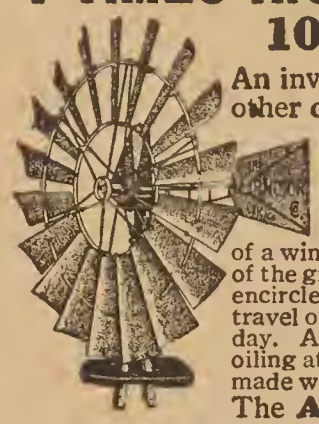

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For full information write **AERMOTOR CO.** Chicago Kansas City Dallas Minneapolis Des Moines Oakland

The Valley of the Giants—*By Peter B. Kyne*

NOT the least of the trials which formed Shirley Sumner's character was pride. Hers was the pride of lineage, of womanhood, of an assured station in life, combined with that other pride which is perhaps best expressed in the terse phrase "a dead game sport." Unlike her precious relative, Shirley had a wonderfully balanced sense of the eternal fitness of things, her code of honor resembled that of a very gallant gentleman. She could love well and hate well.

A careful analysis of Shirley's feelings toward Bryce Cardigan after the incident in Pennington's woods, had showed her that under more propitious circumstances she might have fallen in love with that tempestuous young man of many lovable and manly qualities. As an offset to the credit side, however, there appeared certain debits in the consideration of which Shirley always lost her temper and was immediately quite certain she loathed the unfortunate man.

He had been an honored and (for aught Shirley knew to the contrary) welcome guest in the Pennington home one night, and the following day had assaulted his host, committed bodily injuries upon the latter's employees for little or no reason, declared his unfaltering emmity to her nearest and best-loved relative, and in the next breath had had the insolence to prate of his respect and admiration for her. Indeed, Shirley recalled that the extraordinary fellow had been forced rather abruptly to check himself in order to avoid a fervid declaration of love! And all of this under the protection of a double-bitted axe, one eye on her and the other on his enemies.

However, all of these grave crimes were really insignificant compared with his crowning offense. Shirley had informed Bryce that she loathed him—whereat he had looked her over cooly, grinned a little, and declined to believe her! Then fate had decreed Bryce Cardigan an opportunity to save her and her uncle from certain and horrible death, thus placing upon Shirley an obligation as irritating to acknowledge as it was futile to attempt to reciprocate.

That was where the shoe pinched. Forced to acknowledge her indebtedness, she had telephoned him and purposely left ajar the door to their former friendly relations.

Monstrous! He had seen the open door and deliberately slammed it in her face. Luckily she had heard, unsuspected by him, the soliloquy wherein he showed the distress with which he abdicated—which knowledge was all that deterred her from despising him with the fervor of a woman scorned.

The fascination which a lighted candle holds for a moth is well known. In yielding one day to a desire to visit the Valley of the Giants, Shirley had been thinking of a certain blackberry pie, which naturally induced reflection on Bryce Cardigan and reminded Shirley of her first visit to the Giants under the escort of a boy in knickerbockers. She wondered if the years had changed it all and decided that there could not possibly be any harm in indulging a very natural curiosity to visit and investigate.

Her meeting with Moira McTavish that day, and the subsequent friendship, renewed all her old apprehensions. On the assumption that Shirley and Bryce were practically strangers to each other, Moira did not hesitate to mention Bryce very frequently. To her he was the one human being in the world utterly worth while. Moira described Bryce in minute detail and related little unconscious acts of kindness, thoughtfulness, or humor performed by Bryce—his devotion to his father, to the Cardigan employees, his ability, his industry, his marvellous taste in neckwear. And presently, little by little, Shirley's resentment faded, and in her heart was born a hope that some day she would meet Bryce Cardigan on the street and that he would pause, lift his hat, smile at her his compelling smile, and forthwith proceed to bully her into being friendly and forgiving.

TO this state of mind had Shirley Sumner attained at the time old John Cardigan decided to sell his Valley of the Giants.

Shirley had learned from the Colonel the history of old man Cardigan and his Valley of the Giants, or as the townspeople called it, Cardigan's Redwoods. Therefore she was familiar with its importance to the Laguna Grande Lumber Company, since, while that quarter-section remained the property of John Cardigan, two thousand five hundred acres of splendid timber were rendered inaccessible. Her uncle had explained that ultimately this would mean the tying up of some two million dollars, and inasmuch as the Colonel never figured less than five per cent return on anything, he was in this instance facing a net loss of one hundred thousand dollars for each year obstinate John Cardigan retained that quarter-section.

"I'd gladly give him a hundred thousand and let him keep a couple of acres surrounding his wife's grave," the Colonel had complained bitterly to her. "I've offered him that price a score of times, and he tells me blandly the property isn't for sale. Well, he who laughs last laughs best, and if I can't get that quarter-section by paying more than ten times what it's worth in the open market, I'll get it some other way, if it costs me a million."

"How?" Shirley had queried at the time.

"Never mind, my dear," he had answered darkly. "You wouldn't understand if I told you. I'll have to put up a deal of money, one way or another, but in the end I'll get it all back with interest—and Cardigan's Redwoods! I expect to do business with his executor or his receiver within a year."

Shirley had been present the night John Cardigan, brought to bay at last, had telephoned Pennington. The cruel triumph in the Colonel's handsome face had been too apparent for the girl to mistake; recalling her conversation with him, she realized now that a crisis had come in the affairs of the Cardigans, and across her vision there flashed again the vision of Bryce Cardigan's homecoming—of a tall old man with his trembling arms clasped around his boy, with grizzled cheek laid against his son's, as one who, seeking comfort through bitter years, at length had found it.

PRESENTLY another thought came to Shirley. She had given Bryce his opportunity to be friendly, and he had chosen to ignore her though sorely against his will. In Sequoia, Bryce Cardigan was regarded as the heir to the first timber-king, but Shirley knew now that, Bryce Cardigan bade fair to wear a tinsel crown. Was it this knowledge that had led him to avoid her?

"I wonder," she mused. "He's proud. Perhaps if he were secure in his business affairs—— Ah, yes! Poor boy! He was desperate for fifty thousand dollars!" Her heart swelled. "Oh, Bryce," she murmured, "I think I'm beginning to understand some of your fury that day in the woods. It's all a great mystery, but I'm sure you didn't intend to be so—so terrible. Oh, my dear, if we had only continued to be good friends, perhaps you'd let me help you now. For what good is money if one cannot help one's friends in distress? Still, I know you wouldn't let me help you, for men of your stamp cannot borrow from a woman, no matter how desperate their need. And yet—a paltry fifty thousand dollars!"

In the morning she telephoned Moira McTavish and invited the latter to lunch with her that noon. When Moira came, Shirley saw that she had been weeping.

"My poor Moira!" she said, putting her arms around her visitor. "What has happened to distress you? There, there, dear! Tell me all about it."

Moira laid her head on Shirley's shoulder and sobbed. Then, "It's Mr. Bryce," she wailed. "He's so unhappy. Something's happened; they're going to sell Cardigan's Redwoods. Just before I left the office, Mr. Bryce came in—and stood a moment looking—at me—so tragically I—I asked him what had happened. Then he said 'Poor Moira! Never any luck!' and went into his—private office. I waited a little, and then I went in too; and—oh, Miss Sumner, he had his head down on his desk, and he reached up and took my hand and—and laid his cheek against it—and oh, his cheek was wet. It's cruel—to make him—unhappy. He's good—too good. And—oh, I love him so, Miss Shirley, I love him so—and he'll never, never know. I'm just one of his—responsibilities, you know; and I shouldn't presume. But nobody—has ever been kind to me but Mr. Bryce—and you."

THE hysterical outburst over, Shirley led the girl to her cozy sitting-room upstairs. Moira's story—her confession of love, so tragic because so hopeless—had stirred Shirley deeply.

"Of course, dear," she said, "you couldn't possibly see anybody you loved suffer so and not feel dreadfully about it. And when a man like Bryce Cardigan is struck down, he's apt to present rather a tragic and helpless figure. He wanted sympathy, Moira—woman's sympathy, and it was dear of you to give it to him."

"I'd gladly die for him," Moira answered simply. "Oh, Miss Shirley, you don't know him the way we who work for him do. If you did, you'd love him, too. You couldn't help it, Miss Shirley."

"Perhaps he loves you, too, Moira." The words came with difficulty.

Moira shook her head hopelessly. "No, Miss Shirley. I'm only one of his many problems, and he just won't go back on me, for old sake's sake. We played together ten years ago, when he used to spend his vacations at our house in Cardigan's woods, when my father was woods-boss. He's Bryce Cardigan—and I—I used to work in the kitchen of his logging-camp."

"Never mind, Moira. He may love you, even though you do not suspect it. Tell me about his trouble, Maira."

"I think it's money. I'm afraid things aren't going right with the business. It hurts them terribly to have to sell the Valley of the Giants, but they have to; Colonel Pennington is the only one who would consider buying it; they don't want him to have it—and still they have to sell to him."

"I happen to know, Moira, that he isn't going to buy it."

"Yes, he is—but not at a price that will do them any good. They have always thought he would be eager to buy whenever they decided to sell, and now he says he doesn't want it, and old Mr. Cardigan is ill over it all. Mr. Bryce says his father has lost his courage at last; and oh, dear, things are in such a mess. Mr. Bryce started to tell me all about it—and then he stopped suddenly and wouldn't say another word."

Shirley smiled. She thought she understood the reason for that. However, the crying need of the present was the distribution of a ray of sunshine to broken-hearted Moira.

"Silly," she chided, "how needlessly you are grieving! You say my uncle has declined to buy the Valley of the Giants?"

Moira nodded.

"Moira, I'll see that he does buy it. What price are the Cardigans asking for it now?"

"Well, Colonel Pennington has offered them a hundred thousand dollars for it time and again, but last night he withdrew that offer. Then they named a price of fifty thousand, and he said he didn't want it at all."

"He needs it, and it's worth every cent of a hundred thousand to him, Moira. Don't worry, dear. He'll buy it, because I'll make him, and he'll buy it immediately; only you must promise me not to mention a single word of what I'm telling you to Bryce Cardigan, or in fact, to anybody. Do you promise?"

Moira seized Shirley's hand and kissed it impulsively. "Very well, then," Shirley continued. "That matter is adjusted, and now we'll all be happy. Here comes Thelma with luncheon."

When Moira returned to the office, Shirley rang for her maid. "Bring me my motor-coat and hat, Thelma," she ordered, "and telephone for the limousine." She seated herself before the mirror at her dressing-table and dusted her adorable nose with a powder-puff. "Mr. Smarty Cardigan," she murmured happily, "you walked roughshod over my pride, didn't you! Placed me under an obligation I could never hope to meet—and then ignored me—didn't you? Very well, old boy. I'm going to make a substantial payment on that huge obligation as sure as my name is Shirley Sumner. I'll be put to my wit's end to get it to you without letting you know. And yet you deserve it. You're such an idiot for not loving Moira. She's an angel, and I gravely fear I'm just an interfering, mischievous, resentful little devil seeking vengeance on——"

SHE paused suddenly. "No I'll not do that, either," she soliloquized. "I'll keep it myself—for an investment. I'll show Uncle Seth I'm a business woman, after all. He has had his fair chance at the Valley of the Giants, and now he has deliberately sacrificed that chance to be mean and vindictive. *I'll* buy the Valley but keep my identity secret from everybody; then, when Uncle Seth finds a stranger in possession, he'll have a fit, and perhaps, before he recovers, he'll sell me all his Squaw Creek timber—only he'll never know I'm the buyer. And when I control the outlet—well, I think that Squaw Creek timber will make an excellent investment if it's held for a few years. Shirley, my dear, I'm pleased with you. Really, I never knew until now why men could be so devoted to business. Won't it be jolly to step in between Uncle Seth and Bryce Cardigan, hold up my hand like a policeman, and say: 'Stop it, boys. No fighting, *if* you please. And if anybody wants to know who's boss around here, start something.'"

And Shirley laid her head upon the dressing-table and laughed heartily. She had suddenly bethought herself of Æsop's fable of the lion and the mouse!

When her uncle came home that night, Shirley observed that he was preoccupied and disinclined to conversation.

"I noticed in this evening's paper," she remarked presently, "that Mr. Cardigan has sold his Valley of the Giants. So you bought it, after all?"

"No such luck!" he almost barked. "I'm an idiot. I should be placed in charge of a keeper. Now, for heaven's sake, Shirley, don't discuss that timber with me, for if you do, I'll go plain, lunatic crazy. I've had a very trying day."

"Poor Uncle Seth!" she purred

(*Continued on page* 154)

WHAT HAS HAPPENED IN "THE VALLEY OF THE GIANTS"

"I'M just naturally stubborn" said Bryce Cardigan cheerfully.

He found his father, lumber pioneer, blind and almost penniless. He took on old Cardigan's fight against Colonel Seth Pennington, unscrupulous Eastern operator.

He made friends with Shirley Sumner, the Colonel's niece, and declared his love during a free-for-all fight in Pennington's woods. After whipping her uncle's woods-boss for cutting down a tree in the Valley of the Giants, his father's grove of redwoods, he saved Shirley and the Colonel from a run-away train and then calmly told them he expected to fight them both for supremacy.

He fired old McTavish, his father's drunken woods-boss and installed Moira, his beautiful daughter, in the company office. And he is now discussing with old Cardigan how he can hide the fact that he is behind the building of the new logging railroad to parallel Pennington's and open up inaccessible timber property.

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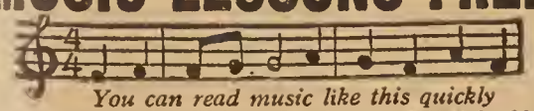

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Radio "Listening In"

Operating The Simple Regenerative Set

By BRAINARD FOOTE

NOW that farms are being radio-equipped, a few words on operation of radio sets and what may be expected of them are not amiss. Assuming that a single tube regenerative outfit such as was described in the last radio installment in the American Agriculturist is in use, and the average single tube commercial product is of this type, there are one or two simple details of utmost importance. Where the WD-11 tube is in use the adjustment of the rheostat will not be found critical, and it is best to turn the rheostat on only far enough to give satisfactory regeneration. As the dry cell becomes used up it will be necessary to advance the rheostat more and more until finally, no regeneration can be obtained even with it all the way around. About 75 hours of continuous service can be expected from a single dry cell before it is necessary to purchase a new one. There are also several types of small storage or renewable batteries available, and although their initial cost is about six or eight dollars, in the long run they are more satisfactory because of their constant voltage. The Edison cell, for instance, gives 1,000 hours service with one WD-11, and then a new internal element may be purchased for a dollar or two. If more than one WD-11 is used, as for amplification, as many dry cells as there are tubes should be connected in *parallel* for the "A" battery.

How Batteries are Rated

The standard "six volt" tubes operating from a storage battery require about 1 ampere of current each. Batteries are always rated in "ampere-hours," and it is easy to determine just how many hours a battery will last with such tubes by dividing its ampere-hour capacity by the number of amperes consumed. For instance, if the battery is of the 80 ampere-hour size, and a 3 tube receiver is in use, there will be 3 amperes needed. Eighty divided by 3 gives about 25 hours continuous service. It is dangerous to allow the battery to discharge lower than the minimum specific gravity reading marked on the label, and a syringe hydrometer should be purchased to gauge this. Where the farm is equipped with a 32-volt lighting system, it is possible to purchase an additional storage battery similar to the type used in the unit. This battery, when exhausted by the radio set, may be charged by substitution in the charging system. Where the house is wired with 110-volt alternating current, there are a number of methods available for battery charging in a most economical manner. The vibrating rectifier is a fairly reliable instrument, although the contacts need cleaning every month or two. The cost for charging the average battery by one of these rectifiers is about a nickel. The Tungar rectifier uses special bulbs for the rectification, and while the operation is almost noiseless and perfectly reliable, the tubes must be replaced once in a while. Hence it may be seen that the vibrating charger is more economical although it is noisy, while the bulb type costs considerably more for upkeep, but appeals to those who wish quiet operation.

The "B" Battery

"B" batteries usually last five or six months, and manifest old age in several ways. Often the zinc cylinders of the cells become eaten away, and the chemical action within will cause a terrific scraping and grinding sound in the receivers. Often they will begin to swell and bulge at the sides when used up. They, however, are not a serious item of expense in radio upkeep. Provided the vacuum tubes are *never* illuminated more brightly than necessary, they will last for a year or two, and recharging the battery will probably be the most expensive item. Of course with the WD-11, this expense is very slight.

If a regenerative set is used, and there are neighbors within half a mile using any form of radio set, it is a matter of radio etiquette to prevent the set from regenerating during the earlier evening hours as much as possible. Each regenerative receiver is also a low power transmitter, and radiates its feeble energy for a considerable distance, often interfering seriously with clear reception at some other station. One sometimes hears little squeals and whistles chasing each other up and down while he is listening to a program, caused by some inconsiderate owner of a representative outfit.

When tuning up and down the scale on such a set, the tuning dial and the dial controlling the regeneration should always be kept in such a relative position that regeneration is almost, but not quite beginning. At this point there will be marked amplificaion of music and speech without distortion, although if any adjustment is changed the least bit without at the same time altering the "tickler" or the "plate variometer" (which control regeneration) there will be soft hissing sound or squeal heard. Since owners of sets in country locations have so many broadcasting stations within their reach it might be well to keep a card handy to the set with the various dial adjustments marked for best results on each station. These of course would be found by actual trial.

In the Air

It seems to be the fashion now for each broadcasting station to work along some particular line of endeavor, which will tend to identify and make that station prominent. And the various stations have adopted slogans, bells, bits of song or other "earmarks" which appear somewhere in the program. Although there are over 500 broadcasting stations east of the Mississippi, there are few really outstanding stations. About New York there are three excellent stations: WEAF, obtaining an enviable reputation for the clearness of its broadcasting; WJZ the medium through which so many after-dinner speeches from meetings and banquets have been broadcast; WOR, whose afternoon selections are admired for their originality and variety. Boston is well represented by WNAC the Shepard Stores and WGI of Medford Hillside. In that vicinity, too, the Westinghouse company operates WBZ of Springfield, Mass., this station, together with the other Westinghouse stations in Newark, KDKA of Pittsburgh, and KYW of Chicago, are all careful to give complete information of value to the farmer.

The Central states are well represented by KYW, KSD, the St. Louis "Post Dispatch," WLAG of Minneapolis, "The Call of the North" WOC of Davenport, "Out Where the West Begins," WDAF of Kansas City, and WHAS of the Louisville "Courier-Journal."

Southern stations seem to cluster in Atlanta for some unaccountable reason, and with one or two of the Fort Worth, Texas, stations and three of Philadelphia, the radio fan may travel at will over the eastern part of our country and yet warm his toes before his own fireside. Radio entertainers cannot see their audiences, and thus depend solely upon letters, telegrams and phone calls for applause or criticism. For that reason, broadcast stations are anxious to hear from their listeners, for suggestions and comments are always welcome. To attract such communications, several of the broadcasting stations have organized "fraternities" among their listeners, and WDAP of the Drake Hotel, Chicago, awards prizes, raffles off Ford cars in front of the announcer's microphone, and in every way simulates the personal touch found in the theater. Inasmuch as the stations are operated at a great expense without possibility of revenue, and the performers are not paid for their services, it really becomes the duty of a satisfied listener to write his applause to the station, or if certain features are objectionable to him, to send in his well-meant criticism.

For the information of those who have constructed the single tube outfit described in the American Agriculturist of February 3, the next radio article will explain the construction of a two-stage amplifier to be used in conjunction with any one bulb receiver.

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Planned Menus Save Time

Care of House Plants—An Inexpensive Stylish Dress

PLANNING menus, of course, requires a little time and careful thought, but my system "kills two birds with one stone." Friday night is my "planning night," and I use the cheapest corresponding cards I can get. On one side of a card I write the day's menus and on the other side I write the recipes included in those meals that I do not bother trying to remember, so that I need not waste time with the cook book. I first look in my pantry to see what I have on hand, and then, after planning the meals for a whole week, I know just what groceries I need for that week, and can have my order ready for Saturday's dealing without that bothersome forgetting of needed articles. That is one "bird." Now for the other:

I use white cards for every day, pink for Sunday, and blue for "specials," such as harvesting and threshing grain. I write the menus with ink with the exception of the day and the kind of cereal, cake, pudding, or pie. Those I write with lead pencil so they can be erased and used on other days with other kinds of cereal, etc., if so desired. By planning them that way, if you are sick, tired, or have something extra to do, you need only to know what you have on hand, select your cards accordingly, and behold! your meals are planned for a week, you can write your grocery order, and two worries are off your mind.

Use Colored Cards

When you have your collection of menu cards the "man of the house" and children will delight in helping select the menus for a week's meals. I shall add a few words of warning here. Do not let the "menu system" be a tyrant. If my husband makes an unexpected visit to town, and brings home a steak for dinner, he gets it no matter what is on the menu for that meal. Or if the children express a wish for a different dessert, and I know it in time and have the ingredients, they get it. A little straying from the beaten path once in a while will not hurt the system, provided you know it in time—especially in the matter of desserts.

I never write the kind of preserves, jellies, and pickles on the cards, but just keep in mind the following rule:

"Never repeat the same flavor twice at one meal." For instance, if peaches are in the dessert, do not have peach preserves. As for pickles, do not serve very sour pickles with poultry and game, or very sweet pickles with pork and sea food.—CATHARINE R. GROVES.

CARING FOR HOUSEPLANTS

BERTHA ALZADA

Improper methods of watering plants result in more fatalities than any one thing. Sometimes it is too much water and sometimes too little, but the effect is much the same, though the chances for life are entirely with the dry plant. The plant kept too wet will have the roots injured beyond much chance to save them, while the roots of the other in the dry soil will be sturdy. Such plants quickly recuperate when given right conditions.

The right way to water plants is to examine the soil, water only when needed and then soak the whole ball of earth fully. To tell when the soil is dry enough, dig down a little, and take a large pinch between the fingers. If it will not stay in a solid mass, water is needed. If it does not crumble readily when you tap it, you will not water it yet.

Where plants have been hurt badly by overwatering, the soil can seldom be made to give results. The best plan is to wash the soil from the roots gently and pot in new soil, and then keep on the dry side for awhile until it shows signs of recovery. Water will not help a sick plant, though the soil must not get dust-dry. Keep just at the point where the soil crumbles when pressed and tapped.

Plants stunted from being kept too dry will need good water only. When the ball of earth gets dry and hard, as it does when watered often in small doses, it is hard to soak it up. The best way is to set the pot in a tub with two inches of water in the bottom, and let it take its time to soak through to the top. You may have to put more water in the tub, but if you can make it soak up in shallow water, it is better, as there is less danger of washing soil out when draining it afterward.

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The ideal between-seasons dress is this wool crêpe frock, with its smart long lines, its braid trimming and its wide range of sizes.

The crêpe is all wool, of medium weight. The collar and flare cuffs harmonize with the color of the dress. This is a slip-on model with a self-material belt and a metal clasp buckle.

Colors: Navy with copenhagen, or brown with tan.

Sizes: 34 to 44 bust. Skirt lengths 33 to 39 inches. (Give all measurements.)

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I learned how to use them through an accident. I hadn't been married very long, and dinners and oven doors seemed much more important to me than they do now. Of course, I realize that no really experienced housewife would ever set a pan of water on top of her oil stove oven in the first place. But I did. Then I opened the oven door too quickly, and the water slopped over on the hot glass, cracking it in a dozen pieces.

I couldn't have it happen that morning because my mother-in-law and my sisters-in-law were coming to a dinner that had to be cooked in that oven. As I say, I couldn't have it happen. But it did.

At the sound of the crackling glass, and my cry of dismay, the handy-man of the house hurried into the kitchen to learn the cause of the trouble. One glance assured him that there were no fatalities, and his first words were comforting.

"That isn't the only glass in the world."

"I know it, but we have none that will anywhere near fit this door."

"Oh, well, I'll cut it to fit."

"Cut it? I thought you had to have a glass cutter or something like that to cut glass."

"No. All you need is a file and some kind of a poker."

We hurried out and got the glass, a file, and an old soldering iron in place of a poker. Then he put the soldering iron in the flame of my stove and turned his attention to the glass.

"I don't suppose you have any chalk?"

Of course I hadn't.

"Well, I guess I can use this file for a marker."

The opening in the door was 7 x 14 inches. Beginning at the corner of the pane, he marked off 7 inches in one direction and 14 inches in the other. Then he measured the other two sides with a yard-stick and scratched the boundaries on the glass, using the yard-stick as a straight edge.

Before the actual cutting began, he lifted the glass edgewise, and drew the file harshly across the upper corner of the edge just where the cutting began. That made a well-defined notch to serve as a starting point.

By this time the soldering iron was red hot, and he took it from the fire. Holding the point just above the glass, he began at the notch and moved the hot iron very slowly along the line on which he wanted to part the glass. A tiny crack followed the poker. When it seemed to lag, he waited a bit till it caught up again. When he reached the corner on one line, he began again where the other boundary met the edge of the large pane, and led that crack right down to the corner again. Then my new oven door dropped away straight edged and exactly the right size.

We have often used this simple method since that day. When a headlight breaks on the flivver, we draw a circle of the proper size on paper, and lay a piece of double-strength window glass over the pattern and cut out a new one. Indeed, for curves, the hot poker is better than the ordinary glass cutter, for the latter needs a solid pattern to work against, and the poker can be made to follow any design.

MAKE TUESDAY WASH DAY

JESSIE WALKER

Why so many women prefer Monday for wash day is beyond my comprehension. In my estimation, it is the most undesirable day of the week. Tuesday is a much better day. Monday should be the day of preparation. The first thing on Monday morning, after the usual work is done, I carefully brush and put away all the garments worn on Sunday. Grease spots are removed and torn places carefully mended. It is much better to patch a garment before it is washed and ironed as the patch then shows less, while it is also much easier to mend a soiled garment than a garment starched and ironed. When the mending is all done, the clothes are assorted and put to soak or put into a tub ready for the water to be added at night. This takes only an hour on Monday morning, or sometimes a little more, and knowing that everything will be ready for the wash tub on Tuesday morning relieves one's mind greatly. On wash day we do not dine on left-overs or at the side table, for the washing is all on the line before time to get dinner. A good washing machine and wringer and a man or big boy to manipulate them is a good help, but if you have none of these, use a good washing powder.

Your paper is very popular.—PHILIP MENGES, Chautauqua, N. Y.

TO WEAR AT HOME OR WHEN YOU STIR ABROAD

TWO widely different styles for the woman, and a design which can be used for either school or "dress up" for the young girl, are shown this week. The blouse and skirt call for soft, figured silks, crêpe or brocades; the house dress, since it needs a combination of materials, might be used for new goods or to rescue an old dress for make-over.

If you can sew up a seam, you can make **blouse 1653** and it takes only 2⅛ yards of 36-inch for the medium size. We advise the new printed silks—riotous colors or more subdued rich figures as you prefer. Three sizes, small, medium, large. Suitable for the large figure too, **Pattern 12c**. No troublesome waistline with this pleated skirt! **No. 9826** is attached to a neatly fitted camisole with elastic instead of a tight waistband. The pattern comes in sizes 16 years, 36, 40 and 44-inches bust measure. Size 36 requires 3¼ yards 36-inch. **Pattern, 12c.**

1581 Trans. 626

Blouse 1653 Skirt 9826

"The boss of the house" must dress accordingly. Gone are the sloppy mother Hubbards of other days! Enter the trig smart-looking housewife of 1923. **No. 1543** is a work-frock which might easily be a play frock too. It has a modified bolero, becoming to almost all women, combined with the loose long-waisted line which (thank heaven!) fashion decrees for all dresses now. Use gingham, chambray, ratine—almost any wash fabric. **No. 1543** is cut in sizes 34, 36, 38, 40, 42, 44, 46 and 48-inches bust measure. Size 36 requires 3¼ yards 36-inch material, ⅜ yard 36-inch contrasting, 7¼ yards binding. **Price 12c.**

1543

No. 1581 is the newest thing for the girl of "the awkward age!" Whether it be a schoolfrock in ratine, poplin or serge, or a party gown in crêpe de chine, velvet or challis, trim it with embroidery in gay contrasting colors and accent the neck (which may be square or round) and front side-closing by big buttonhole stitching of a bright shade.

No. 1581 comes in sizes 4, 6, 8, 10, 12 and 14 years. Size 8 requires 2 yards 30-inch material. **Pattern, 12c. Transfer No. 626** (blue) **12c.**

Going like hot cakes! Our spring book of fashions with its pages crammed full of useful and pretty designs to tempt the home dressmaker. The well-dressed woman cannot afford to miss it, for every model is stylish and up to date.

The catalogue is 10c. Each pattern is 12c. We prefer to receive remittance in stamps as coins often are lost. If you send currency, wrap carefully. Be sure of exact numbers and sizes, write your name and address very clearly and mail your order to Fashion Department, American Agriculturist, 461-4th Avenue, N. Y. C.

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Reviewing the Latest Eastern Markets and Prices

THE TREND OF FEED PRICES

EVERY dairyman is interested to more or less degree in the feed market outlook for the weeks between now and spring grass. With this in mind, I pass on to you the opinions as to the feed market situation of a man with whom I talked this week, who is in position to know as much about such conditions as anyone in the country.

As to corn, oats, wheat and barley, he stated that the situation was very uncertain and would be largely influenced by the outcome of foreign complications now existing. There seems to be a tendency among farmers to hold what grain they have left for a higher market, and the consumption of corn on the farm is very greatly increased over normal years. If financial arrangements are made that will enable foreign nations to purchase in the volume they undoubtedly need, our markets would, of course, be much stronger. On the other hand, if this is not done, there is no reason for any material advances.

Linseed oil-meal stocks in all terminal markets are light. Supplies of flax seed at country points are adequate to keep the mills operating in a limited way until a new crop, but it is rumored that some of the Minneapolis crushers contemplate discontinuing on account of limited supplies of raw materials. The circumstances seem to this man to offer no reason for declines in this product.

Cottonseed Meal Lower

Cottonseed meal and cake have declined from $1 to $2 during the past few weeks. The domestic demand for this material has been about normal and the cotton crop about half of normal this season. This man's opinion is that the low point has been reached for the time being at least, and some advances from present prices may be expected.

The supply of gluten feed is limited with most manufacturers. With corn advancing slightly, there seems to be little justification for lower prices in the immediate future. The freer offerings in some sections have been due to railroad embargoes which made it impossible for mills to fill their eastern sales.

Mills both northwest and southwest are running on a very limited capacity, and in consequence supplies of brans and middlings are very limited. It will probably be April or May before some of the mills are caught up on extracts, passed due. Spot bran and middlings are both in demand, and as long as this condition exists material declines are unlikely.—HERSCHEL H. JONES.

POTATO SITUATION BAD

Those who have potatoes still on hand will be interested in the report just issued by the United States Department of Agriculture estimating the marketable stocks of white potatoes on hand January 1. According to this estimate 29.7 per cent of the total 1922 production in the late potato states is still on hand, compared wih 26.6 per cent of the total crop on hand at this time last year. The estimated total crop of this season was 422,122,000 bushels, compared with 337,980,000 bushels last year.

In the 19 states of especially heavy production, including New York, 35.3 per cent of the marketable crop is still on hand, compared with 31.4 per cent on hand at this time last year.

In the heavy production states, 85.8 per cent of the merchantable stock still on hand is held by the growers themselves and only 14.2 per cent by dealers.

The average price of 46.2c per bushel in those states on December 1, 1922, was lowest for that date in eight years. The price of 58.7c on December 1, 1915, was the nearest to it.

The total carlot shipments of potatoes in the entire country to date are only a few thousand cars in excess of last year to same date, in spite of the heavier production.

This data does not make the outlook for potato growers in New York State who still have their potatoes look very encouraging. If statistics do not lie, spring prices for potatoes will at least be no higher than at present.

Receipts of potatoes at New York were liberal, but included very few Maines. State round whites at the yards sold at $2.40 to $2.65 per 180 lb., bulk. There has been a lot of frozen stock which sold at very irregular prices. Sacked States sold at $1.90 to $2 per 150-lb. sack, with a few at $2.10.

APPLES MOVE SLOWLY

The market for both barrel and box apples has been in unsatisfactory shape since last week. The movement has been slow. Buyers want only fancy graded stock, especially McIntosh and Spies, and really fancy goods sold readily. Both Baldwins and Greenings sold at $4 to $5 per barrel, depending on quality. Good McIntosh brought $10 to $15 per barrel.

ONION MARKET DULL

Heavy supplies of onions, of which a large part were of inferior quality, caused a dull and weak market. State yellows sold per cwt. at $2.25 to $2.65.

CABBAGE HOLDS FIRM

The New York market for cabbage continued firm, with Danish selling at $32 to $35 per ton, with some fancy as high as $38. New cabbage is still in light supply, and it looks as though the market would hold steady for the next two weeks.

EGG MARKET STILL LOWER

The highest quotation on New Jersey hennery white eggs was 45 to 48c per doz. last week. The great bulk of the nearby shipments were not of uniform, fancy quality to bring this price. Accumulations of nearby eggs were pretty well cleaned up in the market. Buyers tended to discriminate closely as to quality. Hennery browns, extra fancy, brought within two cents of the top price on fancy whites, and demand for fancy dark brown eggs was good. In packing hennery browns it pays to sort out the dark color, which are in better demand than cream color.

Since January 1 the receipts at New York have been about 40,000 cases ahead of last year in the same period. Receipts last week were about 8,000 cases in excess of the week before. It is likely that the colder weather and the snow will check shipments and cause a firm market temporarily. The cold storage reserve of eggs now are only about 1,500 cases more than at this time last year. Considering the much larger quantities put into storage last spring, the consumption of eggs has obviously increased considerably.

BUTTER FALLS—THEN RISES

Although wholesale butter prices, both fresh and storage, dropped down to the lowest level in many weeks since our last review, they gradually picked up again. The market was firm on February 8, with creamery salted high score at 50 to 50¾c. Receipts are running considerably in excess of last year. Since January 1 New York has received 50,000 tubs more than in the same period last year. The colder weather of last week, however, cut down the receipts, and the prospect of a lighter supply, together with an increased demand, stiffened the market. Retail prices have come down 4 or 5c per lb., and most of the chain stores are now selling at about 55c. The stocks of cold storage butter still on hand in the four large markets of the country, February 7, were only 8,700,000 lbs., compared with 23,000,000 lbs. on the same date last year.

There is a surplus of unsalted butter in the market and only a limited demand for it. Unless values advance again, it is improbable that much more of the Danish butter will be imported.

CHEESE MARKET WEAKER

The market for cheese was not so firm last week as in the week previous. The feeling as to the near future is uncertain. Jobbers are only buying small lots for the most part to meet current needs. Stocks of held State flats, however, are very moderate and holders seem to feel that they can maintain present prices for a while at least. The quotation on State flats, held average run, which affects the price of fluid milk, continued at 28 to 28½c per pound.

LIVE POULTRY MARKET STRONG

Last week there was temporarily a shortage of live fowls, chickens and broilers. Broilers are in demand. Fancy heavy fowls brought premiums of 1 to 2c above top quota. Western shipments by freight continue heavy, but were delayed in arrival. Very few express shipments of fowls or chickens are arriving. The market is glutted with dressed poultry and nearby shippers can get better results shipping alive.

Nearly 2,000,000 pounds of dressed poultry were received at New York last week, which was considerably over twice as much as in the corresponding week last year. The total receipts of dressed poultry in the four largest markets since January 1 are nearly twice what they were last year in the same period.

Poultry shippers are advised to cut out and keep before them the following calendar of Jewish and other holidays in the next three months:

Purim, March 2, Market Days, February 26 to March 1; Commodities in Demand, Fowls and Hen Turkeys.

Easter, April 1, Market Days, March 26 to 29; Commodities in Demand, Fowls, Capons, Ducks, Geese, Rabbits, Spring Lambs and Prime Veal Calves.

Passover, April 1, Market Days, March 26, to 29; Commodities in Demand, Turkeys, Fat Fowls, Ducks and Geese.

Last Passover, April 7-8, Market Days, April 2 to 6; Commodities in Demand, Prime quality of all kinds.

Feast of Weeks, May 21, Market Days, May 15 to 18; Commodities in Demand, Very little extra for this holiday.

Decoration Day, May 30, Market Days, May 24 to 29; Commodities in Demand, Broilers and Prime stock of all kinds.

HAY SURPLUS DISAPPEARING

Due to continued light shipments, the outlook for hay at New York is improving, especially on high grades. Permits are hard to get and there is no immediate prospect of heavier receipts. Most of the offerings are No. 2 and No. 3 western hay. Most sales have been at $20 to 23 per T. and none exceeding $24.

CHANGES IN FEEDS

Wholesale feed prices at Buffalo showed declines last week on cottonseed meal and advances on mill feeds. Offerings of feed at Buffalo have been liberal, but trading was handicapped by the railroad situation. Quotations on carlots f. o. b. Buffalo in 100-lb. sacks February 7 were:

Gluten feed, $46.55 @ 47; cottonseed meal, 36%, $47 @47.50; oilmeal, 33% to 34%, local billed, $50.50 @ 51; standard spring bran, $32.50 @ 32.75; hard winter bran, $33 @ 33.25; standard spring middlings, $33 @ 33.25; choice flour middlings, $33.25 @ 35.75.

No. 2 yellow corn per bushel at Buffalo was 84½c; No. 2 white oats, 50¾c; rye No. 2, 98¼c.

GRAIN MARKETS STRONGER

A more optimistic outlook on the European situation last week caused a stronger market on future grains, which had its effect on cash grains. Prices on February 9, per bu., at New York, follow:

Wheat, No. 2 red, $1.32; No. 2 hard winter, $1.29½; corn, No. 2 yellow, 93c; oats No. 2 white, 55½ @56c; ordinary white clipped, 54½ @ 56½c; rye, $1.02; barley, 79 @ 80c; buckwheat, $1.96@2.16. At Chicago, corn No. 2 yellow, 74½@75c; oats No. 2 white, 44½@45½c; barley, 60 @68c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on February 9:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	45 @48	......	......
Other hennery whites, extras	44 @45	44@46	......
Extra firsts	42½@43	......	39
Firsts	41 @42	......	37
Gathered, whites, first to extra firsts	41 @43	......	......
Lower grades	39 @40	......	......
Hennery browns, extras	45	......	......
Gathered browns and mixed colors, extra fancy	40 @43	......	......
Pullets No. 1	37½@38	41@42	......
Butter (cents per pound)			
Creamery (salted) high score	50@50¾	51@52	......
Extra (92 score)	49@49¾	49@50	49½
State dairy (salted), fine to fancy	43@47	47@48	......
Good to prime	37@42	41@46	......
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$21@23	......	$20@21
Timothy No. 3	19@20	......	17@18
Timothy Sample	15@17	......	20
Fancy light clover mixed	23@24	......	......
Alfalfa, second cutting	24@25	......	......
Oat straw No. 1	16@17	......	12.50@13
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	33@35	27@29	31@32
Fowls, leghorns and poor	25@26	24@25	27@28
Chickens, leghorns	23@26	18@20	26@28
Roosters	17	17@18	17@18
Live Stock (cents per pound)			
Calves, good to medium	14½@15½	12½@15	......
Bulls, common to good	2½@ 4	3½@ 5¼	......
Lambs, common to good	9 @11½	13½@15¾	......
Sheep, common to good ewes	3½@ 5½	7 @ 8½	......
Hogs, Yorkers	9¼@ 9½	9½	......

FOR GOOD SERVICE SHIP TO
M. ROTH & CO.
ESTABLISHED OVER 30 YEARS
EGGS
Prompt Returns
High Prices
Financially Reliable
185 DUANE STREET
NEW YORK
EGGS
WRITE FOR SHIPPING TAGS

The Valley of the Giants

(*Continued from page* 150)

sweetly. Her apparent sympathy soothed his rasped soul. He continued:

"Oh, I'll get the infernal property, and it will be worth what I have to pay for it. I'll see Judge Moore to-morrow and offer him a quick profit for his client. That's the game, you know."

"I do hope the new owner exhibits some common sense, Uncle dear," she replied, and turned back to the piano. "But I greatly fear," she added to herself, "that the new owner is going to prove a most obstinate creature and frightfully hard to discover."

True to his promise, the Colonel called on Judge Moore bright and early the following morning. "Act Three of that little business drama entitled 'The Valley of the Giants,' my dear Judge," he announced pleasantly. "I play the lead in this act. You remember me, I hope. I played a bit in Act Two."

"In so far as my information goes, sir, you've been cut out of the cast in Act Three. I don't seem to find any lines for you to speak."

"One line, Judge, one little line. What profit does your client want on that quarter-section?"

"That quarter-section is not in the market, Colonel. When it is, I'll send for you. And remembering how you butted in on politics in this country last fall and provided a slush-fund to beat me and place a crook on the Superior Court bench, in order to give you an edge in the many suits you are always filing or having filed against you, I rise to remark that you have about ten split seconds in which to disappear from my office. If you linger longer, I'll start throwing paper-weights." And to emphasize his remark, the Judge's hand closed over one of the articles in question.

The Colonel withdrew with what dignity he could muster.

(*Continued next week*)

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Double your poultry profits with our **Famous Improved Winter Egg Basket Strain** of S.C.White Leghorns. They are the selected, long, deep-bodied typical hens with large lopped combs, mated to the famous Hollywood and Beall 250-300 EGG Pedigreed sires. All our breeders are culled, selected, and mated by poultry specialists and inspected and approved as to their laying ability and health.

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BABY CHICKS

Price List Prepaid to you	Purebred Stock 100	50	25
White and Brown Leghorns	$13.00	$7.00	$3.75
Buff and Black Leghorns	13.00	7.00	3.75
Anconas	14.00	7.50	4.00
Minorcas	15.00	8.00	4.25
Rhode Island Reds	15.00	8.00	4.25
Barred Rocks	15.00	8.00	4.25
Buff and White Rocks	16.00	8.50	4.50
White and Silver Laced Wyandottes	16.00	8.50	4.50
Buff Orpingtons	16.00	8.50	4.50
Langshans	18.00	9.50	5.00
Brahmas	20.00	10.50	5.50

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Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.

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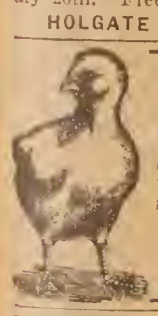

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CHICKS from heavy laying flocks that are true to name in Orpingtons, Wyandottes, Rocks, Leghorns, Anconas, Minorcas, and Reds. A REAL HATCHERY—not jobbers. We sell only our own hatched Chicks. Send your name for descriptive printed matter and right prices. Postpaid. 100% live delivery guaranteed. Bank reference.

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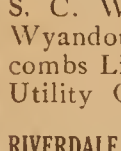

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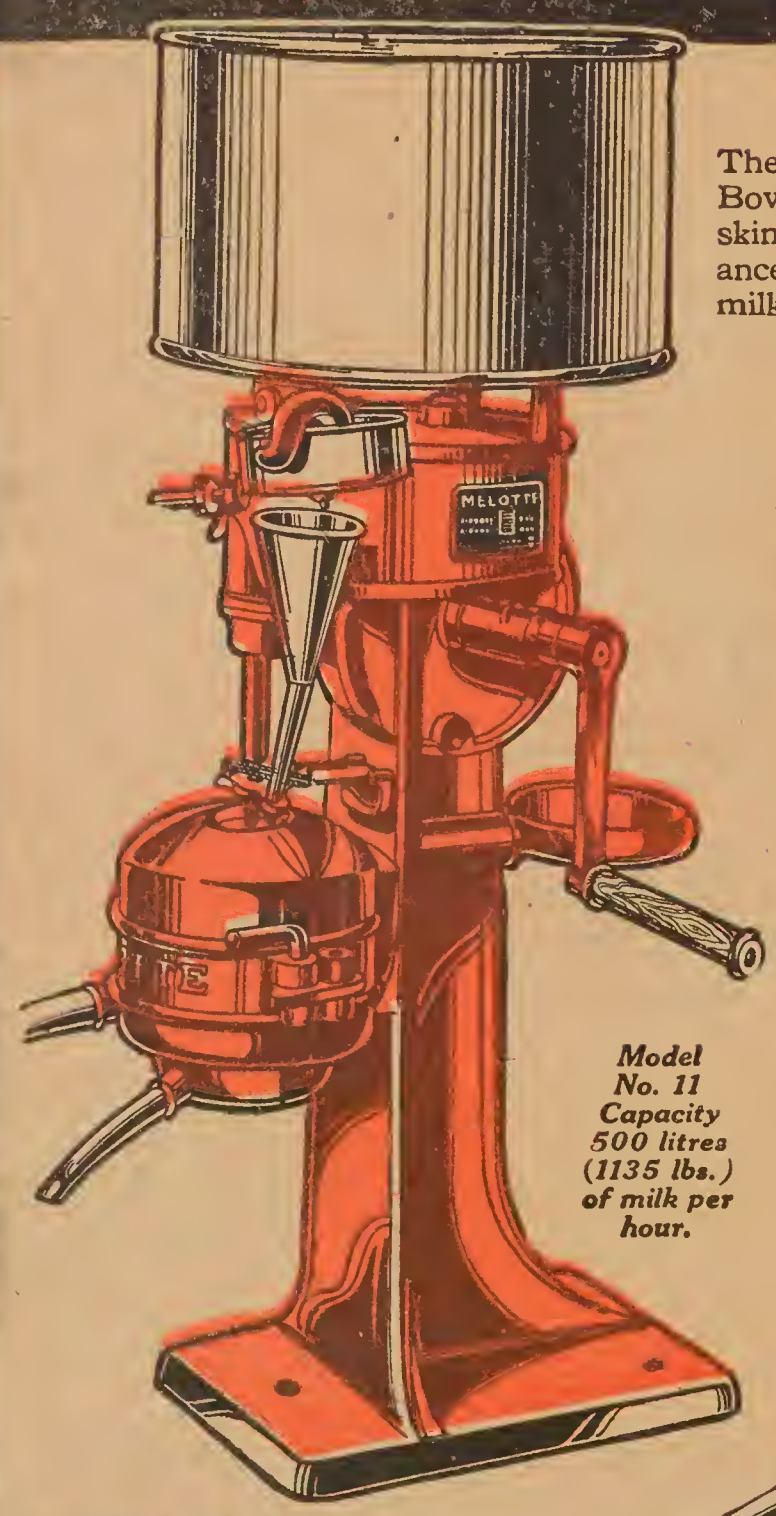

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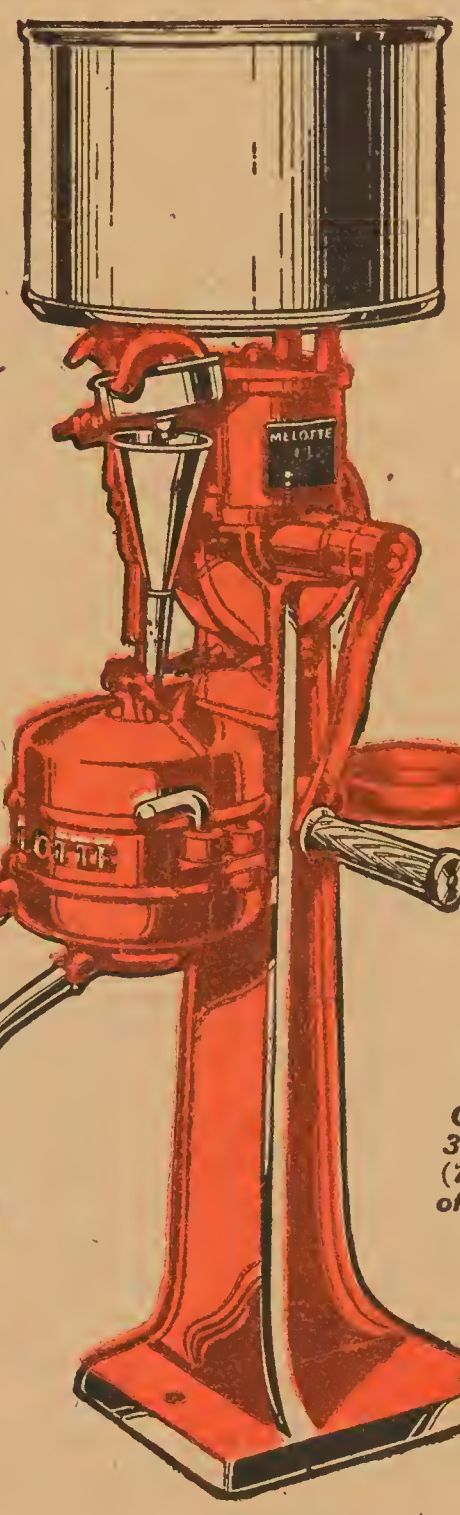

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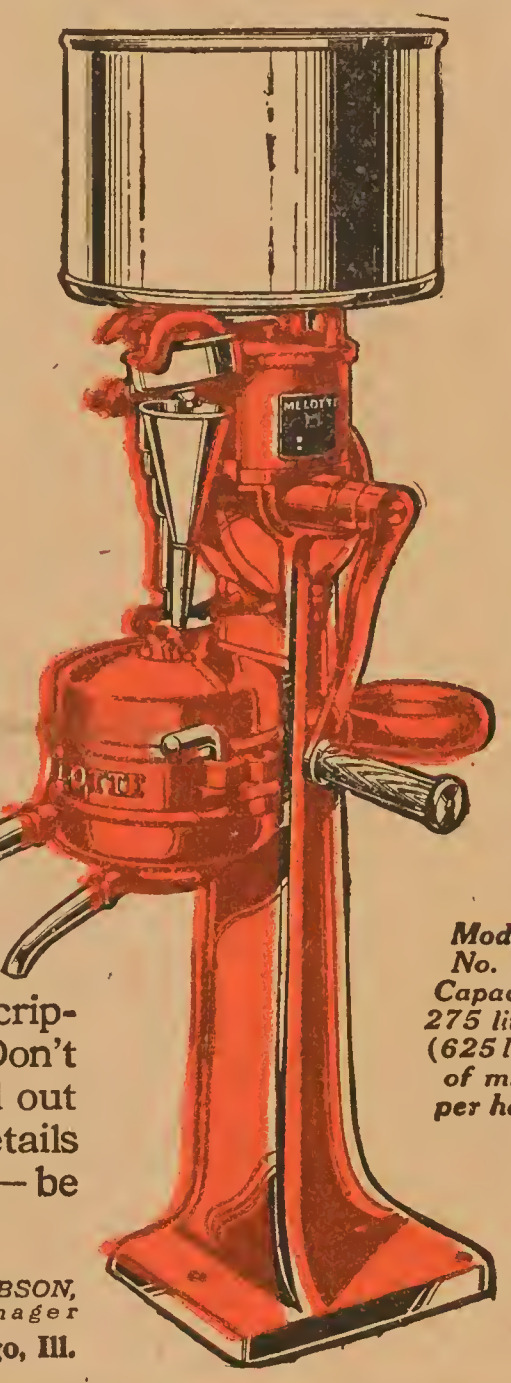

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VOL. 111 Founded 1842 No. 8

AMERICAN AGRICULTURIST

$1.00 A YEAR February 24, 1923 5 CENTS A WEEK

Yankees, Cows and Maple Sugar—By Jared Van Wagenen, Jr.

A Thousand Grangers Gather at Syracuse

Annual Session Acts on Rural Schools, Prohibition and Legislation

WHEN the New York State Grange opened its annual session in the Mizpah Auditorium at Syracuse, Tuesday, February 6, there were 796 delegates in their places, representing 53 Pomonas, 919 subordinate Granges and over 130,000 Grange members in every part of the great Empire State. In addition to the delegates, several hundred visitors were present, swelling the large gathering to well over a thousand people.

Immediately after organization and seating of the delegates the Grange got busy with one of the best and most important business sessions in its history.

The problem that received the largest amount of interest and discussion during the week was that of the rural schools. The work and report of the Committee of 21 has greatly increased the interest of rural people in their schools and this interest was manifested in the Grange sessions by the introduction of many resolutions, both for and against the Committee's suggestions. In the final sessions the Committee went on record in favor of many of the suggestions of the Committee of 21.

The delegates voted for a larger school-tax unit, but such unit should not contain any city or village of more than 1,500 inhabitants. A resolution was adopted that there should be no consolidation of rural school districts without the approval of a majority of taxpayers in the district. This is practically in line with the suggestion of the Committee of 21 that any consolidation of the rural schools should be optional with the local patrons. A resolution was adopted calling for greater financial support of teachers' training classes and of the rural schools. The Grange Committee on Common Schools declared against all false economy, which limits expenditures for educational purposes. A very important achievement was a vote authorizing the Executive Committee to appoint a special committee to consider the establishment of a fund by the State to aid farm boys and girls who cannot educate themselves to secure an education.

A number of Important resolutions on Legislation were passed. The Grange voted for the return of the direct primaries; against Governor Smith's proposed reorganization of the State Department of Farms and Markets; for repeal of the clause making it optional for cities to have daylight saving; a strong vote was recorded against the proposed repeal of the Mullen-Gage Act for modification of prohibition laws; against the abolishment or weakening of the State police, and against the proposed transfer of highway supervision from towns and counties to the State Department.

A very important resolution was the one opposing any change in the present restrictive immigration laws. A statement was emphatically made that while farmers need a larger supply of labor, they did not care for the kind which comes in hordes from foreign countries.

National Legislation increasing the amount of loan available to individual farmers through Federal Land Banks from $10,000 to $25,000 was favored.

Another important and significant resolution was the one calling on the National Government to support Armenia, even if it led to this country's taking active part in foreign affairs.

A resolution in favor of abolishing tax-exempt securities by amendment to the Constitution failed of passage.

Federal Legislation was favored for the Voigt Filled Milk Bill, the French Truth In Fabric Bill and for the forced settlement of labor disputes by arbitration instead of strikes.

Among miscellaneous resolutions was one in favor of a rural school representative on the State Board of Regents; one commending the work of the Grange League Federation Exchange, and one in support of enforcement of State and National prohibition laws.

One of the important miscellaneous resolutions passed was one in favor of holding the World's Dairy Congress and the National Dairy Show in the City of Syracuse in the Fall of 1923.

F. J. Freestone Elected Lecturer

The Grange elected Fred J. Freestone of Interlaken as State Lecturer to fill the position left vacant by the death of Mrs. Blanche Alexander of Pulaski; H. E. Aiken of Jamestown was elected to fill a three-year term on the Executive Committee.

Albert Manning voiced the spirit of optimism in the Grange in his opening address when he said: "While agriculture has been passing through a most depressing period, still the farmers of New York State have much to be grateful for. When we compare agricultural prices in any State in the Union with New York State, we find the New York farmer coming through as well or better than any other section."

Prohibition Here to Stay

S. J. Lowell, Master of the National Grange, also told the delegates that they could be thankful that they lived in New York State. Master Lowell said "Conditions in the West are serious. Hundreds of farm are posted for sale to meet taxes." The remarks of the speaker on prohibition drew applause when he said "Prohibition has come to stay. Ninety per cent of the farmers of the country are for it, and 100 per cent of the Grange is for it. While the farmers present this sort of a front the prohibition laws cannot be overthrown or seriously modified."

With the strong spirit of optimism that better times are ahead, there was an equally strong feeling that certain definite things must be done to bring about better times, not the least of which is a lessening of Government activity with a resulting lowering of the present too high taxes.

Dr. R. W. Thatcher of the Geneva Experiment Station, gave a fine talk at the Wednesday session, telling of the needs for a research laboratory at Geneva. Dr. Frank Graves, Commissioner of Education, also addressed the body, pointing out some of the disadvantages of the present educational system.

At the final evening session the sixth degree was exemplified on a large class of candidates from all sections of the State. Wednesday evening the jubilee pageant was given by the Onondaga County Grange, depicting the origin, early struggles and growth of the Grange.

DIRECTORS, MANAGER, AND ATTORNEY OF THE G—L—F

Standing, left to right—E. J. Walrath, Evans Mills; F. C. Porter, Crown Point; G. A. Kirkland, Dewittville; H. Burden, Cazenovia; Attorney Morse, New York; Manager H. E. Babcock, Ithaca. Seated—R. C. Hitchings, Syracuse; Harry Bull, Campbell Hall; N. F. Webb, Cortland; H. L. Brown, Waterport

The Way to Sell Apples

AS one of the officers of the Horticultural Society, I want to thank you for the splendid write-up given our annual meeting in last week's issue of your paper.

Your criticism regarding the large number of varieties grown in the East is well taken. There have been innumerable remedies prescribed during the past few years to cure the bad marketing conditions that confront the New York State apple grower, but two most important features of the subject have been given scant attention. The present requirements of the trade in all kinds of fruit require the small package and a choice product. The man who produces fancy apples, of any one, of not to exceed a dozen of the best varieties, selects them carefully and packs in small containers, so that when exposed for sale every apple will be in good condition, will as a rule have very little trouble in getting fair prices for his apples.

The waste caused by packing and shipping in barrels, in too many instances, is greater than would be the extra cost of a smaller container and a better pack. It is very generally true that the ultimate consumer pays about as much per pound for apples out of the barrel of very common quality as for those out of the box of superior quality because the consumer in the final purchase pays for all of the imperfect and bruised apples in the barrel whether they are sold or not. The better class trade demand the better varieties of apples and it wants them in good condition and the sooner we meet these requirements the better for the New York apple grower.—T. E. Cross, Dutchess Co., N. Y.

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 For the Week Ending February 24, 1923 Number 8

Yankees, Cows and Maple Sugar

"Up Where the Mountains Meet the Sky, In Little Old Vermont"

By JARED VAN WAGENEN, JR.

LAST week I went to Burlington, Vermont, to attend the annual meeting of the State Dairymen's Association. It was a flying trip—two nights on the train and one day at the Convention. The Vermont Dairymen's Association may represent a little State, but it is nevertheless, a somewhat note-worthy institution. The Association is 53 years old and at the meeting there was present a man who was one of the charter members and who has the unique record of having missed only one annual meeting in all those years. I do not think that he pleads guilty of being a speech maker—being a very modest soul—but at the banquet the toast-master insisted that he stand up in his place while a great round of applause swept the dining room. It proves that in our hearts we all greatly honor that sort of enthusiastic loyalty.

Two that go Together

It happens in Vermont that almost every farmer is a maple sugar maker as well as a dairyman—so it is emminently natural and fitting that the Dairymen's Association and the Maple Sugar-makers' Association should unite in a joint convention. This meeting is always held at Burlington, thus enabling the farmers to look over their State College of Agriculture which is a part of the University of Vermont.

Burlington is the metropolis of the State and styles itself the "Queen City." I have seen it in summer—a city beautiful and wonderful for situation, seated on the hillside and looking out over the gleaming island-studded waters of Lake Champlain with the wooded folds of the Adirondacks on the horizon.

I remember a Farm Institute trip that I made in the State some years ago—two weeks in August, two meetings each day—in two different localities, and a swift rush between, covering, I think, every county of the State in this very hurried fashion. On several other occasions I have made brief visits to the State so that I have come to feel a certain familiarity with the Green Mountain country.

Vermont has a long and honorable history with her full share of the incidents which are the foundation of romance. Over on the eastern slope and perhaps half way up the State, I remember stopping to read a marker beside the road—a tablet recalling a far-off event that has in it all the elements of pathos and tragedy and heroism. It marks the spot which was the birth-place of the first white child born in Vermont. That child was born to a Massachusetts mother who was being carried captive by the Indians down the long wilderness trail to Canada. Such grim happenings as this seemed only a part of daily life, at least of daily risks, to those heroic souls who laid the foundations of our rich and luxurious civilization.

Where the Real Yankee still Survives

Much has been written, but perhaps the full story can never be told—the story of the moral splendor of Puritanism, for those bygone men who made New England fear God and nothing else. And in Vermont, the Puritan has made his last stand. In the interior towns of the State, more especially perhaps on the eastern side of the Green Mountains' range which forms the "backbone," survives as nowhere else, the Yankee, uncontaminated and undefiled. Perhaps the world may yet want to come back here to get seed of the men of that dauntless race.

In this region half way up the State and a little drive back from the Connecticut River, is a little village, West Stratford, unless my memory is wrong—and on a rise of ground in the fork of the road, stands one of those wonderful churches that the Puritan built. The edifice is astonishingly large—they told me there were 2,000 tiny panes of glass in its many windows. And within the memory of living men, the preacher looked out over a great audience of farmers and their folks filling its main floor and gallery. That was in the Golden age of the Church—an age that flowered in New England as nowhere else.

And behind the church, under white slabs of Vermont marble "The rude forefathers of the hamlet sleep."

I love to walk in old grave yards in quiet country places. The records there are brief, but wonderfully authentic and sometimes I can reconstruct history and sometimes I can weave romances concerning men and women whose hearts have been at peace and whose bodies have been dust for these hundred years. So after the session was finished, I went out in the August afternoon to this God's Acre, where every carved surname was pure English, while the given names were so frequently names in which the Puritan loved to baptise his children. Very suddenly, for no one had told me it was there, I came on the tomb of Justice Morrill, and then I remembered Vermont's great Senator, the Grand Old Man who served his State for more than fifty years at Washington, and then returned at last to lay him down among the hills where he was born. We farm people may well honor him, because by common consent he is the father of our nation-wide system of agriculture colleges.

The days are about numbered to the time when the sugar bush will come to life

The sun shines nowhere else so bright
As up in old Vermont.
The snow lies nowhere else so white
As up in old Vermont.
So when the native comes to die,
He loves to go back there and lie
Up where the mountains meet the sky—
In little old Vermont!

It is a piece of great good fortune to be born with a Puritan conscience. It was this pitiless New England "Thou shalt" that made Vermont send to the Civil War more soldiers in proportion to her population than any other State. More than one half of all her men of military age were volunteered (not drafted) with the service.

It was this same New England ethical idealism—a spiritual inheritance from Plymouth Rock—which with the exception of a few large towns, has made Vermont "dry" since the mind of man runneth not to the contrary.

I suspect that it is this same stern uncompromising mentor that still impells Vermont men to go to the "town-meeting" and vote by word of mouth, aye or nay, on all town measures, and that permits every township in the State to send one Representative to Montpelier, the State Capital, and only one. Thus Burlington with 30,000 population, sends one representative and Glastonbury with thirteen voters sends just as many.

The Settlers of Northern New York

It was Vermont that a century ago felt she was already over-crowded and her swarming children "went West" around the northern fringes of the Adirondacks and settled the "North Country" of New York. Hence the North Country, true to ancestral habit al-

(*Continued on page* 162)

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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VOL. 111 February 24, 1923 NO. 8

The Delayed Cattle Indemnities

ONE of the biggest reasons why it has been impossible to clean up tubercular cattle is the slowness of the State in paying indemnities.

It is nothing short of tragedy for a farmer to work a lifetime to establish a fine herd of cattle, only to lose them by the great scourge, and it is certainly the last straw to have to wait for six to eighteen months after his regular income has been shut off for the State indemnities.

There is absolutely no reason or excuse for this long delay. It is just as practical and just as easy for the Legislators to appropriate a sufficient amount in advance as it is to come dragging along months behind in the payment of the State's obligations. Appropriations made ahead so that the indemnities could be paid in thirty days would work miracles in helping dairymen to control a difficult, dangerous and discouraging situation. Ask your Assemblyman and Senator to give thought to this suggestion.

Farmers Still Read The Bible

A RECENT survey made by a Chicago publisher shows that of the approximately 23,000,000 families in the United States, only 15,000,000 own bibles. Of the 7,000,000 families without bibles there are very few in the rural communities. This will bear out the statement often made that country people are more religiously inclined than are city dwellers.

Since the bible was printed in the middle of the 15th Century, more than 660,000,000 have been published. This would give one bible to half the individuals in the world now, or more than two copies to every family.

The first bible ever printed is known as the "Gutenberg Bible," and is still in existence. This bible is more than 450 years old. The first portion of the bible to be printed in English is "Tynsdale's Translation of the New Testament," which was published nearly one hundred years after the Gutenberg Bible. A number of copies of this translation are still in existence and our present authorized version, prepared during the reign of James the First, follows very closely the text of Tynsdale's first English translation.

Enforce the 18th Amendment

EVERY right minded citizen whether a resident of Pennsylvania or of any other State will heartily approve the determined stand of Governor Pinchot that there shall be no government by bootleggers in Pennsylvania.

It is about time that more Government officials and a larger public opinion recognize that the 18th Amendment to the United States Constitution is a law of the land and that therefore while it is, all violation of it is crime.

Low Labor Costs May Not Help

WHICH would you rather have, cheap labor and plenty of it and lower prices for your farm products, or high wages for labor, with correspondingly high prices for farm products? Those who remember the hard times of the 90's will have no hesitation in answering the question in favor of high priced times.

We hear a great deal of loud talk about the too-high cost of labor. There is no doubt that some labor does cost too much and that some classes of labor are not producing; but there is also no doubt that the working man who gets small wages is a mighty poor customer for farm products or for anything else.

Knowing this to be true, we refuse to get excited over the constant complaint of the high wages that the working man is supposed to get. We know it would be a calamity if labor prices in general went down too far. What is most needed is not a lowering of the wage earners' pay, but instead, a general raising of prices for farm products to be in line with what other business receives and with the cost of production.

The present hard times, bad as they are, are far better than the bad old days when plenty of labor could be had for $18 a month, but when corn sold for 7½ cents a bushel that cost 16 cents to grow.

Daylight Saving Still With Us

IT certainly beats all how difficult it is for the world to free itself from the curses which the great war fastened upon it. Not the least of these is that of daylight saving.

To be sure every farmer, every traveler and more and more city people have come to recognize the foolishness and the economic wastefulness of the so-called daylight saving. But there are still many with powerful influence who insist on having daylight saving and we warn farmers to be on guard to prevent the return of this nuisance. No one should fool himself in thinking that he has seen the last of the absurd custom of tinkering with Father Time.

Credit the Farm Home

IN the large number of meetings to discuss the problems of the rural schools which the Committee of twenty-one has recently held, the statement has often been made that the rural schools should have the credit for the great progress made in every business and profession by the men and women who come from the country. Rapid progress of country bred boy and girl should be credited not to the schools, but to the farm and to the farm home.

The farm chores have to be done on time. To do them on time it is necessary to "early to bed and early to rise" which Benjamin Franklin said "makes a man healthy, wealthy and wise." Getting up early in the morning may not necessarily make a man wealthy, but it is one of a long list of good habits which the exacting business of farming teaches. The boy knows the cows must be brought to the barn at a certain hour. The calves, the hogs and the hens must be fed, the eggs gathered and the wood brought in no matter what other business or pleasure intervenes. Doing these small home tasks at the same hours of every day, week after week, during the early years of life when character is formed, gives an education in responsibility that can be acquired in no other way. It is a training that no city home can give, no matter what its other advantages are, and unfortunately it is a training which many farm parents are now failing to give their children. Too many parents, themselves raised to hard labor and privation, are trying to save their children from this same hard experience when a little education in the "school of hard knocks" is just what the youngsters need. When mother washes the dishes while the daughter entertains company in the parlor, she is not helping that daughter to prepare for the later responsibilities of home making in which so many women of this day are sadly failing. Too many modern girls know more about playing than they do about cooking. Nor is father really kind to his son when he does the boy's chores that the boy may have more time to go skating or to get an early start to a party.

It is not to be inferred from this that young folks should not have a good time, but father and mother are entitled to one too. In sacrificing constantly to save children from every responsibility, parents may find when too late, that all of their sacrifice was in vain, and that by it they took from their children the most valuable thing that the farm home or any home can give them—early training to meet the responsibilities which life is sure to bring.

To Make the Public "Apple-wise"

AS everyone connected with the business well knows, certain varieties of apples are at their best only when eaten at certain definite periods of the year—and yet the average consumer, generally unable to tell one variety from another, much less to determine when it had best be eaten, loses the opportunity to so govern his apple buying as to get the maximum of satisfaction therefrom.

When it comes to advertising and sales, the Cooperative Apple Packing Associations of the Northwest are certainly on the job. One of their recent stunts is the publication of a beautiful chart, entitled "The Right Time for Every Apple." This pictures the ten principal varieties of apples grown and packed by the Wenatchee-Okanogan Cooperative Apple Packing Association in the State of Washington. Under each variety is its name and the months during which it can be eaten with the most enjoyment. For instance, *Jonathan* — October, November, December.

The slogan of the association, entitled "Delight in Every Bite," is featured, as is also the different brands packed by the organization. No consumer who sees this chart can help being impressed by it and with the need of getting to a fruit store as soon as possible to try out some of his newly obtained information. It pays to advertise.

"As A Man Thinketh, So Is He"

Beginning Readers' Discussions on the Country Church

THE sculptor carves out of enduring marble the image of his subject. The painter arranges in outline and tint the likeness of his model. Yet rare indeed is the writer who with his pen can erect the statue and in word picture present to the mentality of others, his own splendid vision and imagery of his hero. Such talent is the genius of Idealism.

In the January number of the American Agriculturist, Jared Van Wagenen, Jr., under the title "Where Have Men Like This Gone," deals with the character and life work of Rev. John Christopher Weiting. The real pathos of the article, is the potent, but subdued and pure recital of a local folklore. To the many who read that story, who never knew or heard of Rev. Weiting and his congregation will come a mental and romantic conception of the whole panorama covering forty years of time as though the author had designated the writing as fiction. Fiction excites imagination, fact in this case commands admiration. The infectious tinge of sympathy with passing associations, youthful memories, kindred ties, seasoned reverence and the instinct of hero eulogy, all unite to make a splendid perspective of the subject for an idealistic writer. It seems to me that this splendid vision of community life, would have been perhaps more pleasantly remembered with the shadows of the past resting upon it, than by comparing it with a different epoch in a changing light. The past is ever secure; the present ever changing.

Your editorial questions and courteous request for opinions upon the subject matter will reveal as much discord in sentiment as kindred theological and social subjects generally induce. The most senseless deceptive word ever coined is the nose-filling and twangy "Normalcy." There never was, nor never will be any such condition of stability. Religion is a state of mind, so was transportation by oxcart. Electricity is crowding to the front. The inter-allied church movement has failed. Dogmas and Creeds are ever, and ever have been, ready to split apart. There is no stability meaning (fixity) in m e n t a l i t y. What proof does the past furnish that religious convictions would be better if they stood still? If the sincere devoutness of Rev. Weiting was perfection in 1828 and for forty years, surely t h a t perfection came out of terrible upheavels, and even then, was moving and surging in response to or against far away influences. Let us refer to unimpeachable history. The time was late in the Eighteenth Century. "The doctrine of Bossuet, t h a t transubstantiation was affirmed in the Gospel, and the doctrine of Tillotson that transubstantiation is an absurdity when put together, produced by logical necessity the inferences of Voltaire. Thus two propositions each of which separately is compatible with the most exalted piety, formed when held in conjunction the ground work of a system or irreligion." Thus the conflict of creed produced Atheism. The oldest civilization on earth has its religion established upon philosophy. Savage tribes, including the American Indian held to an allegiance with a Supreme power, but had no theology, yet he without a bible knew as much about revealed religion as the greatest divine. He knew just as much about the soul after death as any man knew. It has never been necessary for a fearless talker who was also a good pyschologist to have religious convictions in order to make so-called converts or originate sects. A knowledge or knack of rousing excitement and frenzy that is inherent in some form in all men, has often been too readily mistaken for zeal and fervor. Touch a lighted match to a stack of wet straw, and touch another to an oil tank. If the straw did not burn and if the oil did burn, questionable logic indeed would give the whole blame or credit to the matches. But put the oil in the straw and either match would burn both. Who can say that the clown exhorter Billy Sunday did not have "the power" when he tore off coat and collar and challenged the devil to fight? He swayed thousands of men, women—and dollars to the sawdust trail, in comparison with dozens and a meagre living by the old-time preachers, who were correct in deportment and orthodoxy.

It is no evidence that country people and city people as well, are not religious when they go or do not go, to hear political speeches, eugenics, sex problems and women's dress, lectured from the pulpit. The people know what they want and if they do not find it they stay away. Those who want society and display, find a fashionable church and try it on as they would a new hat. No religion? Well, just let a modern congregation sit on wooden benches for four hours and listen to an old-time minister with throat of brass and adamantine lungs, preach on foreordination, baptism of apostolic succession and ask their opinion of that religion.

The fact of the matter is that they are all right if they think they are, and that was ever true.

"As a man thinketh, so is he
Who is to try his conscience?
The working of his heart and mind,
Thou canst not see.
What in our dull brain may seem stain—
In God's pure light, may only be a scar,
Brought from some well-fought field
When thou wouldst only faint and yield."

People are just as religious as they ever were if they think so, and just as ready to change creeds, dogmas, ceremonies, as ever has been done, probably not as cruel to torture or condemn, not as melancholy, not inclined to exclusively listen to thunderous theology to the utter exclusion of the "still small voice" which gives assurance, aid and comfort in the realization of self effort well done. If theology is anxious for going back to the past, it is unfortunate in the inducements it presents.—JOHN L. WILSON, Titusville, Pa.

Farmers Can Write

THE response to Mr. Van Wagenen's article and our editorial on the Country Church has over-whelmed us. Over 250 letters have been received, showing the tremendous interest in this vital subject. The great number of letters and their high quality has made it impossible for us to judge them in order to announce the prize winners in this issue. Some good letters are being published on this page. These letters are not necessarily the prize winners. Those that we think are the best will be announced in our next issue. In the meantime, we want to take this opportunity to acknowledge receipt of all the fine letters about the Country Church. They make us more certain than ever that the farmers themselves can write the best and most interesting material for farmers to read.—THE EDITOR.

A Gloomy Picture

IN my judgment, the present day careless attitude toward religion and the church in rural communities is due to causes over which we seem to have no control.

If you will recall your early life on the farm, I think you will remember that in those days there were few attractions that drew us away from the old home life. In those days there were no autos in which to ride for miles, over dirt or mud roads. Then too, each neighborhood had within its borders a large number of well-to-do families, who owned their homes. There were many children in these homes. To-day as a rural mail carrier, I ride through a section of the country where at one time many people lived. They had good homes and large families, and they all seemed to have a common interest in the community life. All of this is gone now; those that now are working these farms are doing it in a half-hearted way. Some places are deserted or are being worked by someone who does not own them and does not care about the place.

(*Continued on page* 170)

"Far from the madding crowd's ignoble strife,
Their sober wishes never learned to stray"

Do Your Seedings Winterkill?

Millions of dollars are lost by farmers because of winterkilling. The U. S. Dept. of Agriculture, several Agricultural Colleges, and numerous farmers have proved that much of the winterkilling of Clover and Alfalfa is due to the use of unadapted seed.

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comes from the fields that have successfully withstood the severest of winter and spring conditions for 25 to 42 years, and are still yielding profitable crops of excellent hay.

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is carefully grown and harvested to prevent damage, and cleaned by the best equipment operated under our supervision.

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"We have distributed G. L. F. Seeds to more than 100 farmers the last two years, and have heard nothing but praise for them."
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"I have sown G. L. F. Seed for two years and the Clover comes thru the winter the best I have ever had."
D. J. Hollis, Lacona, N. Y.

"Formerly while using seed purchased locally, I was troubled by the Clover winterkilling. Since using G. L. F. Seeds I have had no such trouble."
W. J. Suits, Camden, N. Y.

"Have used G. L. F. Seed for two years and cannot praise it too much. It is the best seed to be had and I would not use any other. Seven acres averaged over five tons per acre of Choice Clover Hay."
E. L. Squires, Massena, N. Y.

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lists all the standard varieties of peach trees at attractive prices, together with apple, pear, plum and cherry trees, herry plants, ornamental nursery stock, evergreens, privet, etc. If you favor fruit or are interested in all growing plants of utility and beauty, have us send a copy to you, FREE. A postal brings it.

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CHOICE STRAWBERRY PLANTS $3.75 PER 1,000. All standard varieties, $3.75. Guaranteed first-class or money refunded. CATALOG. MRS. FILENA WOOLF, ALLEGAN, MICH.

Yankees, Cows and Maple Sugar

(*Continued from page* 159)

most universally builds town halls, a custom uncommon in other parts of the State.

It is fashion to say that Vermont is decadent. A very famous woman author with perhaps more sentiment than sense has made the phrase, "Beautiful, dying Vermont." It is true that along with two other commonwealths, Nevada and Mississippi, she shares the distinction of being one of the three states that lost population in the decade 1910-1920. But this means nothing more than that she is chiefly an agricultural community with no large and growing cities. As a matter of fact, nearly all exclusively agricultural regions tend to decline in population. During those same years 33 of our New York State counties lost population and one of them was little old New York County, because more and more lower Manhattan Island is becoming a place to work but surely not to live. Its decline in population necessarily means decadence, thus the situation is bad enough for during that decade Ulster County in our State lost 18.4 per cent and my own good County of Schoharie has barely 60 per cent of the people she counted in 1860, the census date that represents the high water mark in most rural New York counties. If I were a Vermonter, I would not let a little loss in members worry me. There are only a third of a million of them all told any way but among them there is a very large proportion of the finest racial stock the world ever knew—the Puritan.

A WRITER FOR COUNTRY FOLKS

COMMENTING upon community meetings, one of our county correspondents in the "North Country" writes as follows:

"Jared Van Wagenen, Jr., the well-liked Schoharie farmer, with his whimsical style of address that cannot be imitated, has been speaking at community meetings held under the direction of the local Farm and Home Bureau and Grange committees. At two places men drove long distances to see if he looks like his picture in American Agriculturist and whether he talks as good as he writes."

The thousands of farmers who have had the privilege of listening to Mr. Van Wagenen, know that he can talk just as good as he can write. No farm writer that we know can approach Mr. Van Wagenen in his ability to express the joys and sorrows, the hopes and disappointments and the ideals and aspirations of farm people. He has the ability of a great writer to take his readers or his audience back with him across the years to live again the joys and sorrows of other days. He can recall in his humorous and kindly style men and women who were beloved leaders among country people when our fathers and mothers were young. And best of all, Mr. Van Wagenen can leave us with a feeling that the new days as well as the old are good; and that the country and the country home with all its problems is still the best place in the world in which to live.—THE EDITORS.

Coming Back to Maple Sugar

Well I started to say something about maple sugar and instead I have been dreaming of the "Bashful State."

Just a little concerning maple trees and sap buckets for March is almost here. The Maple Products Association put on a wonderful exhibit of their wares—"Maple honey" and confectionery in great variety and syrup that was transparent and sugar that was white almost beyond belief. They told me there was at least a thousand dollars, worth shown in these exhibits. The prize winning booth carried the very appropriate quotation "The Trees of the Lord are full of sap."

When I hear a technical discussion of modern syrup making, I realize that we have "gone some" since the days when we boiled sap in a potash kettle with a hunk of fat pork hung above it at a point that would be reached by the mess before it frothed over; then finished up on the kitchen stove and sugared off when it "bubbled like suppawn" and would "hair in the wind." Listen to the directions how to finish syrup as annunciated by a professor of the college. "High class maple syrup should weigh eleven pounds to the gallon of 231 cubic inches. This corresponds to a specific gravity of 1.32 or to 36 on the so called Baume scale. The best way to determine when it is boiled enough is by the use of an accurate and tested thermometer and when finished it should boil at a temperature just 7 degrees Fahrenheit above the boiling point of pure water in that locality, remembering that while water boils at 212 degrees at sea level. It may boil at 210 degrees or 211 degrees at the high elevation of some sugar camps."

I listened to one noteworthy address—the results of a most exhaustive study of the cost factors in the industry, the survey being made by the Farm Management Department of the College. The survey covered two years and the researches included about 60 different producers with orchards of various sizes. I cannot report this address but only set down a few of the outstanding figures and conclusions.

Taking the average of all these producers and expressing it in terms of units of "per thousand buckets hung" the figures are these: The average value of the trees for one thousand was $1,400. This was of course, the owner's own appraisal. The average production per 1,000 buckets hung was 201 gallons and the average sum received from its sale was $368.00.

The average consumption of fuel to boil this syrup was 18 cords of low grade wood. The average value of equipment for 1,000 buckets was $882.00 surprisingly large it seemed to me.

The average cost of man labor per hour was estimated at 21.4 cents—surely low enough. The average cost of horse labor per hour was given as 19.4 cents—perhaps more than it was really worth this time of year.

Based on these factors, the average cost of syrup was $1.68 per gallon and the average selling price received was $1.83 or a net profit of 15 cents per gallon. Surely, making maple syrup is not a get-rich-quick proposition. The margin is much smaller than I would have expected. Indeed it is so small that if you have any really profitable job you better forget the sap bush. On the other hand, you will be considerably better off to "tap" than you will be if you let the horses stand idle in the barn while you sit by the fire. Or you may think of it in this way. That the main advantage in having a sugar bush is that it gives a man a profitable opportunity to labor at a time of year when perhaps he would not be otherwise employed.

In any case, Vermont believes in the maple tree. She leads every other state, some years tapping very nearly six million trees, while New York comes next with nearly five million.

No Worry for the Future

Surveys indicate that Vermont has enough young trees coming on to maintain production in future years. The average estimate was that trees ought to be ten inches in diameter before tapping and that this size ought to be reached in about 30 years. The state has one orchard of ten thousand trees, the largest in the world.

In any case, in the minds of most people, really high class maple products will stand forth as about the most absolutely delicious of all the fruits of the earth.

The man who goes around in the spring of the year with a brush and bucket of paint in his hands may not present the best appearance all the while, but he is certainly saving money by painting whatever needs it about the place, whether it be building, farm machinery or the front fence and the gates.

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Improved and Pedigreed Seed

PEDIGREED BARLEY, Cornell's two favorites, FEATHERSTON No. 7, six row. ALPHA, two row. For description see our advertisement February 17th issue or send for circular. Price, Featherston No. 7, $2.00; Alpha, $2.25.

PEDIGREED SEED OATS, cleaned through thoroughly equipped warehouse and treated for prevention of smut. Varieties — CORNELLIAN, VICTORY, CROWN and GOLDEN RAIN. For description see our advertisement February 17th issue or write for circular. All varieties, $1.50 per bushel.

SEED CORN, New York State grown from selected ears in special fields.

Pedigreed CORNELL ELEVEN and Improved OIL DENT. For description see our advertisement February 17th issue or send for circular. Screened, $3.00 per bushel. Tipped and butted for accurate planting, $5.00 per bushel.

CERTIFIED SEED POTATOES, HIRUCO NUMBER NINES for seed plots, $3.00 per bushel. GREEN MOUNTAINS and IRISH COBBLERS treated seed, $3.00 per bushel. BLISS TRIUMPHS special stock treated, $3.50. In bushel boxes, $4.00. For description see our advertisement February 17th issue.

SOY BEANS, Black Eyebrow, an early sort. Bids fair to be most popular sort in New York and Pennsylvania. Price, $4.50 per bushel.

HUBAM SWEET CLOVER, Scarified, high germination and purity. Grown in New York. Price, small lots, 50 cents per pound, postpaid. Bushel lots or over, 40 cents per pound.

All prices bags free, freight paid. All orders to be accompanied by 25% cash. 3% may be deducted if sending all cash with order.

Investigation through Farm Bureau or Agricultural Colleges invited.

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Also all varieties of small Fruits, Grapes and Ornamentals. Send us your list for special prices, we will save you money. WRITE FOR OUR FREE ILLUSTRATED CATALOG.

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Prices Lower—Catalog Free

Catalog offers 5 other distinct kinds of "tree" or "sprangle" Oats, including famous "Shadeland Climax." Specializes in Alfalfa—Clovers—Soy Beans—Field Peas—Corn for silage and cribbing. Offers seed for every farm crop and gives valuable pointers on their culture. Write today—ask for samples—get our prices—mention this paper.

A. H. Hoffman, Inc., Landisville, Lanc. Co., Pa.

What Corn Shall I Plant?

Farm Bureau Tests Demonstrate the Paying Varieties

By L. H. WOODWARD

EVERY dairy farmer realizes that there is remarkable difference between individual cows, even though they may be given the same care, and most dairy farmers realize, too, that these differences are very likely to be transmitted. Few of us would venture to say that there was an equal difference between two strains of corn, and that, too, these variations are not only likely, but are almost certain to be transmitted. Results of corn variety tests show as much as 50 per cent difference between standard varieties and strains.

John C. Cheney is a prominent farmer of Chautauqua County (N. Y.) and a leader in his own community and county. He has always taken a good deal of pains with his corn, and during the past 20 years had tried several varieties to find ones that gave him better results than Luce's Favorite and King Phillip.

Having heard the county agricultural agent speak about making some arrangements for corn variety demonstrations, Mr. Cheney offered to run such a test on his farm. The field of each kind laid out along the main road made an interesting demonstration. Mr. Cheney says that more people stopped to see this demonstration during the summer than he had supposed would even notice it in passing. From the auto license plates of those who stopped, it is apparent that many from outside the county and State were interested.

Among the larger groups of visitors with whom Mr. Cheney spent some time to explain the details of the test were the Western New York county agricultural agents, the annual farm management auto tour, and a group of farmers from Erie County, Pa. As the season progressed, Mr. Cheney found that each day he had several opportunities to talk with some one about it. Occasionally he had difficulty in getting his work done, but he felt that it was a worthy cause.

A portion of Mr. Cheney's variety test. Mr. Cheney on extreme right

Early Season Observations

Within six weeks after the corn was planted, some apparent differences began to develop. The first fundamental difference came, however, when the early varieties began to tassel. The order in which the different kinds tasseled is shown in the list of varieties arranged according to the days to maturity. All of the varieties except Leaming were practically mature on September 10, 120 days after it was planted. All varieties were harvested on that date, and with the exception of Leaming, Bloody Butcher, Sweepstakes and Long Island Luce's Favorite. They were all allowed to mature in the shock. The order in which they matured was as follows:

King Phillip.
Smut Nose.
Cook's Cross.
Alvord's White Cap Dent.
Webber's Dent.
Early Huron.
Home-grown Cornell 11.
Cayuga County Cornell 11.
Onondaga White Dent.
Hall's Gold Nugget.
Cornell 12.
Home-grown Luce's Favorite.
Long Island Luce's Favorite.
Bloody Butcher.
Westbranch Sweepstakes.
Early Leaming.

A large proportion of the corn grown in New York State goes into the silo. There is some difference of opinion as to the stage at which the corn should be to make the best silage, but the majority of progressive farmers favor that stage which will give them an excellent quality succulent feed and still contain as high food value as possible. That there is a very great variation in the dry matter in different kinds or varieties of corn was shown in this test.

Each kind was weighed on the afternoon it was cut. Four shocks of each variety was weighed in order that the chance for error might be small. These four shocks were then placed in the barn and allowed to cure for three months. After three months Mr. Cheney felt that they had reached a uniform moisture content, and they were weighed again. During that period the smallest loss in weight had been 51 per cent, with Cornell 11, and the highest had been 70 per cent, in

(*Continued on page* 175)

which he proposed to use was located on one of the main improved highways of the county, and proved to be an ideal place for one of these tests. Mr. Cheney, by the way, has a reputation in his community and county as a good corn grower.

Sixteen varieties of corn were used. Eleven of these came from the Plant Breeding Department of the College of Agriculture, where they had been assembled for this purpose. These eleven varieties were from the best known seed sources, and represent the best that are available at the present time. The other five kinds were collected locally except Bloody Butcher, which was purchased from a local merchant.

The soil on which this test was located was very uniform in character and had a gentle slope toward the west and the shore of Chautauqua Lake. The texture of the soil was ideal for corn, being a gravelly loam and in an excellent state of fertility. In this section of Chautauqua County the average growing season is about 120 days, but it is often impossible to give corn that danger of the seed corn rotting in the cold ground.

This particular piece of soil warmed up rather quickly, however, and the corn was planted on May 10. The few days that followed proved to be good corn weather, and all the seed germinated well.

All through the early part of the season the field was uniform, little difference appearing until the corn was over a foot high.

The Layout of the Test Plot

The corn was planted in check rows, three feet apart each way, and five kernels were planted in each hill. All these details were personally supervised by Mr. Cheney, and great care was used to give each variety an equal chance.

The corn was planted by hand and hoed twice during the early part of the season, which gave it a quick start and left no weeds to compete. The varieties were chosen at random, six rows of each variety being planted.

Sixteen kinds of corn with six rows

DIBBLE'S tested SEED CORN

NORTHERN GROWN, HARDY, ACCLIMATED

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Luce's Favorite, Hybrid Flint. Dibble's Early Yellow Dent.
Gold Nugget Flint. Dibble's Improved Leaming.
Dibble's Droughtproof Dent. Dibble's Mammoth White Dent.
Dibble's White Cap Yellow Dent.

In any quantity from bushels to carloads. Every lot tested in our own Laboratory and sold direct to you under our famous 10-day-money-back-if-you-want-it guarantee, subject to any test you choose to make. Average germination, all lots tested to date, above 95%. Seed corn is cheap this year and we make a special low price on 6 bushels or more, bags free and

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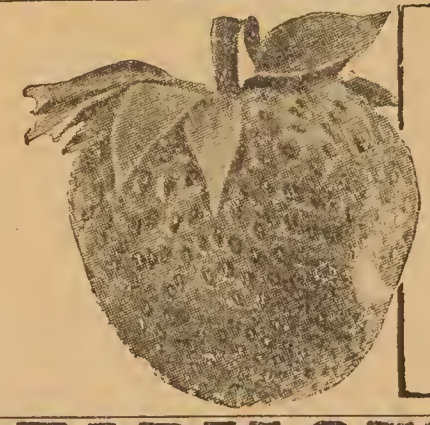

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Fertilizer Foresight

Early Buying the Only Safe Way

By PAUL WORK

NO permanent program for maintaining soil fertility can be built upon commercial fertilizers alone—unless we except the muck soils, which consist largely of decaying vegetable matter. On the other hand, the increasing scarcity of manure has led the commercial vegetable grower to depend more and more upon the concentrated plant foods for crop production. With fertilizers as with seeds, it is necessary to work out requirements well in advance and to place orders early. In this way the gardener has the advantage of more thoughtful planning, of ability to get just what he wants, and of a more favorable position for securing price concessions. If one waits till planting time, he must use the material that is available in a nearby town. If the local dealer has 4-8-7 and he wants 4-12-4, he is "out of luck." The early buyer is able to assemble his needs into one large order, and he has time to correspond regarding prices and sources. There is time also to join a buying pool, or for several neighbors to get together and order a solid carload of assorted items, so saving in both price and freight.

PAUL WORK

Fertilizer buying is easier than seed buying. The value and adaptation of the different varieties are more definitely known. After a few years of experience and consultation with neighbors and specialists, one can build a fairly definite program for his own land and crops, though, of course, some quotations will remain unanswered.

Home mixing should be carefully considered by vegetable men on account of the saving in cost and because it is thus possible to know not only the analysis, but also the sources.

Food for Cabbage Thought

Three dispatches do not make a market, but three items appearing in the New York Packer for January 27, throw some light on the close of the late cabbage deal in Wisconsin and New York. The first reports advances at shipping points of $10 per ton in the former State, adding that the total of remaining stock probably amounts to 225 cars, nearly all in the hands of a few large operators. Two reports from New York conflict slightly, perhaps because one writer is a little more of an optimist than the other. Advance in loading point prices to $15 or $18 has encouraged shipments and supplies seem liberal. Shrinkage this year has been heavier than usual on account of the stock being overripe at storage time. The average is said to be close to 25 per cent, with the range from 15 to 30 per cent. It is not hard to see how the 15 per cent man might make money and the 30 per cent man lose. Such is the difference between men and between the sort of storage conditions which they provide. It is expected that present prices will bring about fairly rapid movement of remaining stock.

Federated Fruit and Vegetable Growers, Inc.

Wide publicity has been given during the past few weeks to the establishment of the Federated Fruit and Vegetable Growers, Inc. This is a nation-wide cooperative which has come into existence through the efforts of the National Fruit Committee of the American Farm Bureau Federation. Since the fruit and vegetable fields find much in common in their marketing problems, the project was extended to include both groups. The new concern has taken over, lock, stock and barrel, the North American Fruit Exchange, which has maintained a national selling organization for the past 12 years. The new organization is to handle carlots for local cooperatives and large individual growers.

Many growers and seedsmen are offering Washington Asparagus seed and plants. This variety was originated by Prof. J. B. Norton while he was with the United States Department of Agriculture. The work was done at Concord, Mass. It takes some years to try out a strain of asparagus; also pollen is carried by wind for long distances. Hence it is well for the buyer to be sure that the stock offered is genuine and that its purity has been properly safeguarded.

Watering the Young Plants

Recently attention was called to the part which the character of the soil plays in regulating the water supply of young plants growing in greenhouse or frame. After all, the most important factor is the man at the end of the hose. This gentleman has the opportunity to advance or retard growth, to discourage damping off and to encourage hardening. His eyes must be wide open to see the weather, the progress and condition of the plants and the condition of the soil.

The general rule calls for morning watering. This gives the plants chance to recover from the shock and chill, and it permits the surface of the soil to dry off somewhat before night. High temperature and abundant moisture are two factors that greatly favor the damping-off fungi which attack the stems of young plants at the base. Afternoon watering may be necessary after plants have become large, when strong sunshine makes the demand especially heavy. In cloudy weather small plants may often go for several days without water.

The skilled hand at watering soon senses the need of the plants much as he does his own needs. As he moves along with his hose, he is conscious that the seedlings at the edge of the flat or bed are a trifle smaller, or that certain spots of soil dry out a bit more quickly than others. His seeing eye catches these differences, and his guiding hand supplies the extra need long before it could be discerned by the visitor. Thus the plantman makes every condition as perfectly uniform as possible, and then, in watering, he has the opportunity to make adjustments here and there throughout bed or house that could never be controlled by temperature, soil or ventilation. The result is not only excellence, but also uniformity in the finished plants.

Foreign Apples Hurt Danish Orchardists

A recent dispatch from Washington states that farmers in Denmark are taking out their orchards to plant potatoes and other more profitable crops. Southern European apples, added to competition from America and Australia, have made it unprofitable for the Danes even to pick their crop, it is said.

The fruit growers of British South Africa claim they can supply all the big markets of the world with fresh fruits in the middle of our winter as soon as they can get refrigerator steamers to carry them. The African fruits arrive in England when other fresh fruits, such as peaches, plums, nectarines and melons are not available. In 1921, 806,891 boxes were shipped from Cape Town.

Honey Producers Looking Toward Export Market

Interest is being shown by New York State honey producers in export outlets for honey in Europe. A recent Canadian government trade report states that in 1920 Great Britain received 5,302,100 pounds of honey from foreign countries, of which 1,900,100 pounds came from Chile and 7,716 from the United States. There is considerable production of honey in the United Kingdom itself.

British imports of honey are invariably packed in barrels, kegs or tins. Popular packages are the 300-pound barrel and the 150-pound keg. Most of the Californian and Australian honey is received in cases containing two tins, each holding five gallons (60 pounds). This honey is imported mainly

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by brokerage and merchant firms, from whom the wholesalers and blenders purchase their supplies and repack in glass receptacles.

The value of honey depends almost entirely upon the quality of the individual sample, and important factors are whiteness of appearance and flavour, which should be delicate and free from strong influence, like peppermint.

DWARF TREES NOT PRACTICAL

Dwarf apples have a certain appeal for the amateur fruit grower and for the home garden, but they have no place in commercial orchards in our Eastern States. It is true that dwarf trees have many advantages, aside from their small size, which consumes little garden space, and the amateur may find them to his liking. Even the best of the dwarf varieties, however, are weak and they are not adapted for large plantings.

Some years ago it was hoped that dwarf varieties could be made a commercial success and repeated efforts in New York State and elsewhere have been made to prove the possibilities of their use, but the experiment station at Geneva, N. Y., as one authority, has shown that dwarf apples cannot be made a commercial project on farms. For a very small orchard or in the garden, however, the dwarf apples make possible a greater variety of fruit than if standard size trees were grown. Some of the varieties are attractive ornamentals, if properly cared for, and so add to their usefulness for home planting.

Varieties Not Different

There is a general belief that dwarf apples are of different varieties and characteristics than our standard sorts, but this is not necessarily the case. The dwarf trees are merely those which have been made to grow smaller than normal trees of the same variety, and, although generally lacking hardiness, they may be fully as healthy and may produce fruit of the same size and quality as their bigger brothers. The dwarfing is usually accomplished by grafting scions or cuttings from standard varieties on some root stock which dwarfs the top.

To secure true dwarfs, summer pruning is usually necessary in addition. The standard scions grafted on so-called Doucin and French Paradise stocks usually produce a good dwarf and these stocks are now widely used. Trees grown on the French Paradise stock are true dwarfs, while those of the Doucin stock are only half dwarfs. It is true that the dwarf apples bear slightly earlier than standard sorts, but not enough so to make them any more desirable commercially.

PLAYS FOR RURAL PEOPLE

A new style of play is here for country audiences. The city-made plays, like the city-made school books, are passing. A new type for both have come. When several years ago there was published a three-act play called "Between Two Lives," there was ushered in a new form of drama and a new era of play acting for dramatic expression in the country that will have far-reaching results. The wonderful success of this play on the amateur stage has led to the production of many others of a similar nature that now makes it possible for every country district to have its dramatic club for the entertainment of its own people, interpreting the life and manners of farm people that leads to elevation, farm contentment and the glory of the farm home. Following the publication of "Between Two Lives" has come another worthy pioneer, "The Cross Roads Meetin' House," a three-act play that presents the problems of the church in rural communities, pleasingly and sympathetically interpreting the life and characteristics centering about the historic communities of rural America. Two other pleasing one-act plays with a country flavor and high dramatic interest are "Don't" and "The Will."

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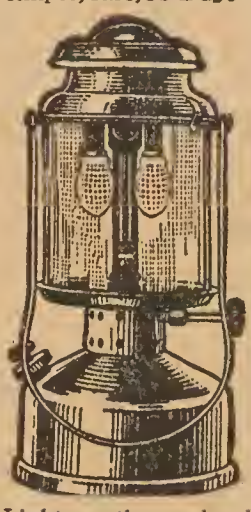

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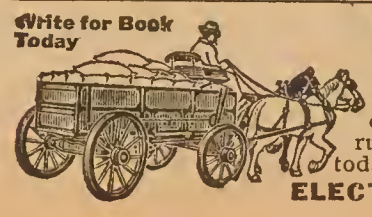

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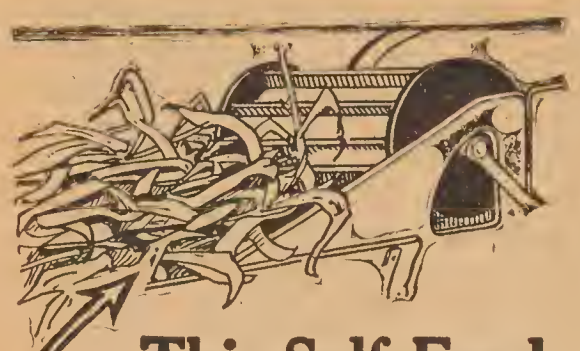

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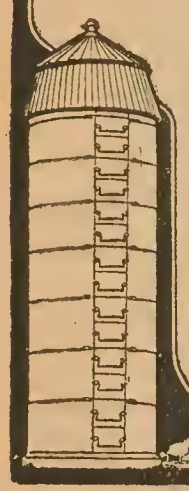

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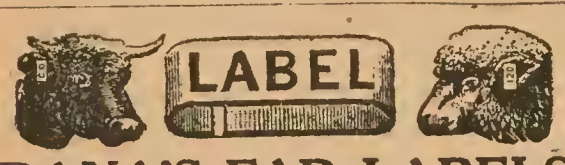

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New York Farm News

Senate Acts Favorably on the Coliseum

THE Senate has passed a resolution to amend the Constitution making the term of Governor four years; also to amend the Constitution establishing a Budget System in the State.

In the joint session of Senate and Assembly, William Bondy of New York was reelected as regent of the State University of New York, Thomas Monroe of Camillius was elected as member of Council of Farms and Markets from the 5th Judicial District.

WESTERN NEW YORK

Ontario Co.—We are having lots of snow and cold weather this winter. There are lots of auctions and things are selling fairly well. Some farm implements are going quite cheap. Pigs and sheep are high and scarce. Horses are low in price and cows are holding fairly steady—H. D. S.

Chautauqua Co.—During the second week in February we had the coldest snap of the winter. We have been having a great ice weather, but not many farmers are putting up a supply of ice against the hot weather of next summer. An ice house is something quite unknown in this community. The dairymen would rather have their milk rejected at the condensery and then kick at the Borden Company for rejecting perfectly good milk. Milk and fuel are about the only farm products that are bringing satisfactory prices. Wood is selling in nearby towns from $3.50 to $5 a cord. If it were not for timber, many farmers would find it pretty hard to pay taxes.—A. J. N.

Genesee Co.—The towns of Stafford and Batavia are covered with nearly two feet of snow. It is an excellent protection for wheat, which in many cases suffered from frosts and dry weather during the early part of the winter. The State Road from Leroy to Batavia has been cleared for auto travel. From there on to Pembroke there is much snow to be removed. The country roads in the country are still full of snow, and some of them have been impassable for some time. Many farmers are complaining because prices are still below cost of production. On the Batavia market potatoes are bringing 40 to 50c a bushel; cabbage, $13 a ton; beans, $7 per cwt.; yellow eyes, $6 per cwt.; hay, $8 @ 11 a ton; alfalfa, $10; butter, 46 @ 47c; eggs, mixed colors, 40 @ 43c; hogs, dressed, $9 @ 10; hogs (live), $7.50 @ 8.00; dressed calves, $16; live poultry, 21 @ 23c; dressed roosters, 24 @ 26c; wheat, $1.50 a bushel. The storms during the past three weeks have been the most severe in Genesee County for many years past.—J. E. B.

COLISEUM NECESSARY

AS we go to press, we learn with pleasure that the bill to appropriate money with which to build a coliseum has passed the Senate unanimously. Now it is up to the Assembly to do the same.

The American Agriculturist has worked hard for over two months to bring the National Dairy Show and the World's Dairy Congress to Syracuse. When we were convinced that without a coliseum these two great expositions might go elsewhere, we decided to lend our support to get a coliseum built in time to clinch these expositions for New York State.

ALONG THE SOUTHERN TIER

The campaign for Farm Bureau members now in progress in Broome County has netted up to date 457 members. Eight hundred and seventy-one farmers have been visited by the two canvassers in the field.

A veterinarian has been engaged to test cows in this county for tuberculosis. The work will be commenced at once. The testing, while not compulsory under the law, is urged by the local committee in charge of the work.

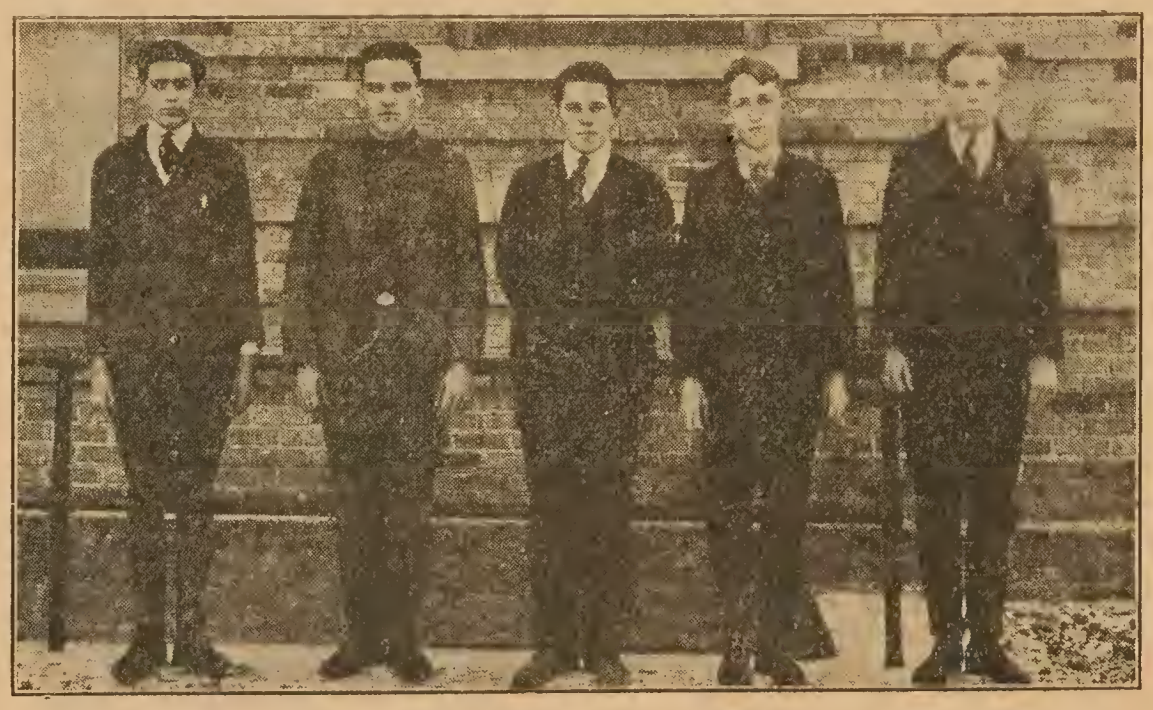
Fourteen G. L. F. agencies have been established in Broome County as follows: Charles Peters, Castle Creek; Tymeson Bros., Maine; Floyd R. Allen, Sanitaria Springs; D. S. Wakeman, Vestal; A. H. Whitaker, Binghamton; Frank Warner, Tunnel; Floyd Bell, Windsor; A. L. Meeker, West Windsor; Ed. Hartz, East Windsor; W. R. Faulkner, Kirkwood; J. R. Harshaw, Chenango Forks; E. S. Haver, Killawag; Wilder Milling Co., Chenango Forks; Tri-county Mills, Deposit.

Lack of hired men is hampering many farmers in their winter work of wood cutting, ice gathering and dairying. It seems quite impossible to find reliable help. The shops at Endicott swallow all the young men and women up, and after a time they will wish they had stuck to the farm.

A meeting of representative members of the Dairymen's League, Inc., was held in Binghamton, January 8, to arrange for the showing of films descriptive of League work. Considerable interest is being manifested in this work.—E. L. V.

NORTHERN NEW YORK NOTES

While the financial condition of farmers is anything but satisfactory, a change in the general feeling is becoming apparent. There is more optimism being expressed as to the future at milk stations, stores, and other



Here are the junior project scholarship winners who completed their first winter course at the New York State College of Agriculture, last week. The second from the left is Raymond Phillips of Ontario County, who won the American Agriculturist Calf Club Scholarship. The others are winners of scholarships sponsored by the New York State Banker's Association. They are, left to right, Charles Walls, Nassau County; Melvin Dewey, Delaware County; Everette Hall, Oswego County; and Charles Potter, Delaware County

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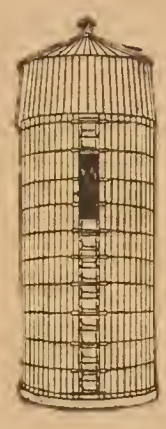

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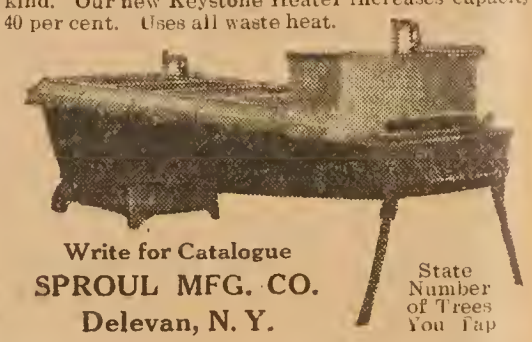

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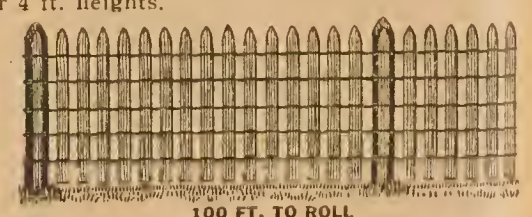

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meeting places than has been the case for over two years. The decision of Referee Merwin establishing the legality of cooperative marketing of milk has created much comment, and will probably have an effect on the number of withdrawals from the Cooperative during this month. The general feeling now prevailing seems to be that there will not be nearly the withdrawals that was forecast in the summer in this part of the State.

A thaw in January brought sufficient water to relieve in many cases the water shortage, and raised the ponds and creeks enough to permit ice cutting, which is now in full swing. Ice ranges from 12 to 20 inches and is of fairly good quality. Unusually high gales have kept the roads drifted full, causing the railroads much trouble and making it impossible for busses on the rural routes to operate at times. An 11-ton outfit, consisting of a plow 10 feet in heighth mounted on a truck, has been giving good service on a 75-mile route.

Oats are moving slowly at 50 cents. The hay market is sketchy, with few sales and prices ranging from $10 for lower grades to $15 as the very top figure. Not many potatoes being offered. Cash prices for strictly fresh eggs run from 45 cents down. Chicken thieves have raided many roosts. Woodlot owners are taking advantage of the market brought by the fuel shortage, and are selling their wood in stove cords. Prices are $5 to $6.50, delivered.

Jared Van Wagenen, Jr., the well-liked Schoharie farmer, with his whimsical style of address that cannot be imitated, has been speaking at community meetings held under the direction of local Farm and Home Bureau and Grange committees. At two places men drove long distances to "see if he looks like his picture in the American Agriculturist, and whether he talks as good as he writes."—W. I. R.

Franklin Co.—Farmers are busy putting up their ice and cutting wood, which has been selling for $3.50 a cord, delivered. Cows are freshening now and the milk supply is considerably increased at our local plants. Dairymen were much more satisfied with the prices paid for December milk than in many months. It is believed that most farmers in Franklin County will stay with the League again this year, with some new ones to come in. Most farm produce is low in price. Potatoes 40c, oats 55c, wheat $1.25, hay $18, eggs 40c, beef 5 to 8c, hogs 15½ to 16c. —H. T. J.

St. Lawrence Co.—The ice harvest is in full swing. There will be very few withdrawals from the Dairymen's League. Not all of the members are satisfied as yet, but are looking for better things in the future. Eggs are very plentiful and are bringing 45c. Hay is holding out fairly well. We have had lots of snow, and the weather is cold. Roads are being kept open fairly well, making auto traffic possible.—H. S. H.

LONG ISLAND DUCK GROWERS HAVE SUCCESSFUL YEAR

The Long Island Duck Growers' Cooperative Association started its spring shipping with nearly 3,000 live ducks in January. Although market prices of other live ducks have fluctuated continually the Long Island Association have been able to keep a fairly even price during the entire year by superior quality and orderly marketing. Their own representatives in the market has gauged the demand daily and had complete control over quantity shipped by members and the price. Their policy has been to send each week just what the market would clean up, regardless of inducements offered by buyers. The standards of grading of the Association are very rigid. Scientific feeding has largely eliminated shrinkage. They estimate their crop this year at 2,000,000 head, of which about 300,000 will be shipped alive.

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It is just as important to hustle when marketing as when growing the crop.

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Disking in the manure before plowing helps to assimilate it with the soil.

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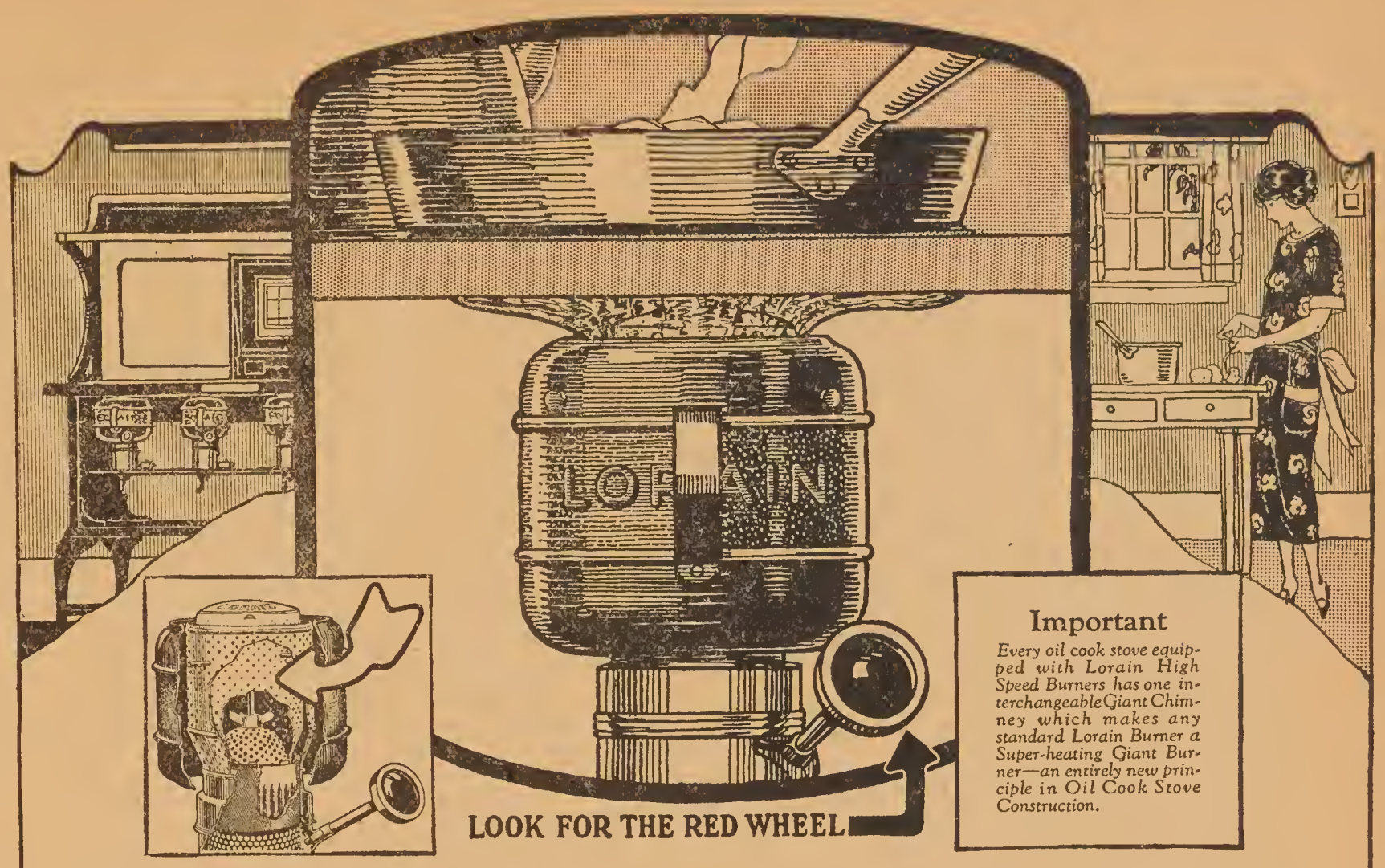
The hen will go to the barn to lay because she finds there a soft bunch of hay.



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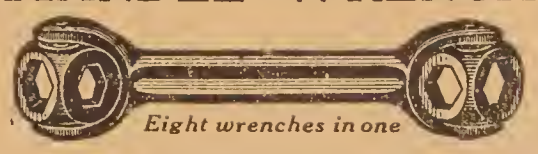

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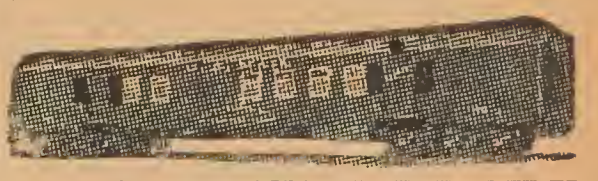

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New Jersey Poultrymen Hold Meeting

AT the quarterly meeting of the Atlantic Coast Poultry Producers', a cooperative organization with several hundred commercial poultrymen in New Jersey and adjacent territory, held at Trenton, N. J., last week, a total enrolment of nearly 60,000 laying hens was reported. The association is handling the product of its members on the New York City and other nearby markets, conducting the sales on the basis of weekly pools, according to the general locality from which the eggs are shipped. It has been successful in increasing the prestige of New Jersey eggs on eastern markets, thus operating to the benefit of the industry as a whole as well as to its own membership. Manager Herman B. Walker said that his plans were well under way to take care of storage eggs for members. During the last two months nearly 50 new members have been elected to the association, 18 at the meeting last week.

In an effort to secure more funds for scientific research on poultry diseases, the directors of the association waited upon Governor Silzer of New Jersey and secured his promise of serious consideration of an appropriation asking for $10,000 to be given to the State College for this purpose. The association also asked for representatives of the poultry industry upon the New Jersey College Board of Visitors, suggesting appointment by the Governor of John Cray of Stockton, N. J., and Harry H. Ober of Lakewood, N. J., these to be the appointments from their respective counties.

Holstein Men Talk Cow Testing

Speaking before the fifth annual meeting of the Salem-Cumberland-Gloucester Counties Holstein-Freisian Association recently, Dr. J. H. McNeil, New Jersey State Veterinarian, said that 456 dairy herds had been tested in the State in the last six months. These herds comprised nearly 17,000 cows. The testing work in the State shows that purebreds are on the increase, and that as a rule there were two purebreds tested to every grade animal. Dr. McNeil also called attention to the desirability of officially testing all purebreds offered for sale, since the records enhance the value and also show the owner which animals he may best dispose of.

Officers of the association for the coming year are: President, Samuel Ridgeway of Salem, N. J.; Vice-president, Eber M. R. Davis of Marlboro, N. J.; Treasurer, John Ridgeway of Hancock's Bridge, J. J. Samuel Ridgeway is a prominent breeder of South Jersey and active in Holstein affairs. Mr. Davis is the owner of Eberdale Farms, and a large winner at some of the State and local fairs.

Notes from the Counties

The season of public sales has opened with reports of large crowds and fair prices coming in from many counties. More interest is indicated in horses and mules than in some years. At one sale in Salem County, N. J., the animals sold from $42.50 to $275, the prices being reported low as a general rule for many of the horses. At some of the sales good timothy went at $23 a ton and potatoes at 40 cents per basket. Most of the sales so far have been largely on a cash basis, and bidders have been buying only for immediate wants. The old custom of buying everything offered and paying with a small cash deposit an promissory notes has not been such a popular method this season.

The Somerset County Agricultural Contest Committee is already laying plans for its third annual boys' and girls' contest to be held next October. Last year 535 boys and girls in the county entered the exhibition, and with the broader plans now under consideration by the committee, it is hoped to make the annual affair an even larger one this year. The officers of the committee are: Chairman, Dr. W. H. Whiton; Vice-chairman, H. C. Krebs; Treasurer, A. C. Morrison; Secretary, E. T. Suydam. The work is conducted under a federated committee representing the Somerset County Board of Agriculture, the County Granges, the County Holstein Association, the County Y. M. C. A., public schools and the Parent-Teachers' Association.

Strout's New Catalog FARMS

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City Folks Tell Us

Now Let's Tell Them How To Do It

By O. W. MAPES

DURING a recent two weeks' visit to the Metropolis, I had a good chance to compare city life with life on the farm and also study some of the marketing problems as they affect farmers in general and poultrymen in particular.

One of my first experiences was to get caught in the famous New York rush-hour jam as I tried to board a subway car. I got caught with my back to the wall as the trainman was trying to urge the crowd in the doorway "forward please," so as to be able to crowd in one more "fare," meaning a nickel more in the treasury, until I had to push with all my might with both hands against the "fare" in front of me, who happened to be a woman, in order to prevent my ribs from being crushed.

As I looked over that crowd, the thought occurred to me, "What a lot of Cheap Johns! Here they are going through this twice each day for the privilege of retaining a five-cent-fare rate. They insist on the privilege of riding all the way from Coney Island to the Bronx for a single nickel, including a passage under the East River, through a tunnel built at enormous cost. If they would be satisfied to call it a ride after they are carried under the river, and pay another nickel for the privilege of continuing on to the Bronx or to the beach, probably 20 miles in all, at least, the company would have funds with which to provide better accommodations, even on the present lines."

Suppose the station platform were made twice as long and the trains made twice as long. What would happen? The tracks must be strong enough to carry an express train of 20 cars just as safely as ten cars. The rails of our cross-country railroad lines carry 50 or more cars with their heavy steam locomotives. The time lost between trains for safety sake, need be little, if any more, for a long train than for a short train.

Give the lines sufficient revenue and they could soon double the carrying capacity of the present subways and surface lines by running more cars and longer trains.

In the Egg Market

One of the points which interested me greatly was the market district around Reade Street, where the white eggs from the Pacific Coast are disposed of. The experiment of disposing of most of the supply of these eggs at a public auction three times a week seems to be meeting with much favor. Samples of each lot are put on display for an hour before the auction begins, where prospective buyers can examine them.

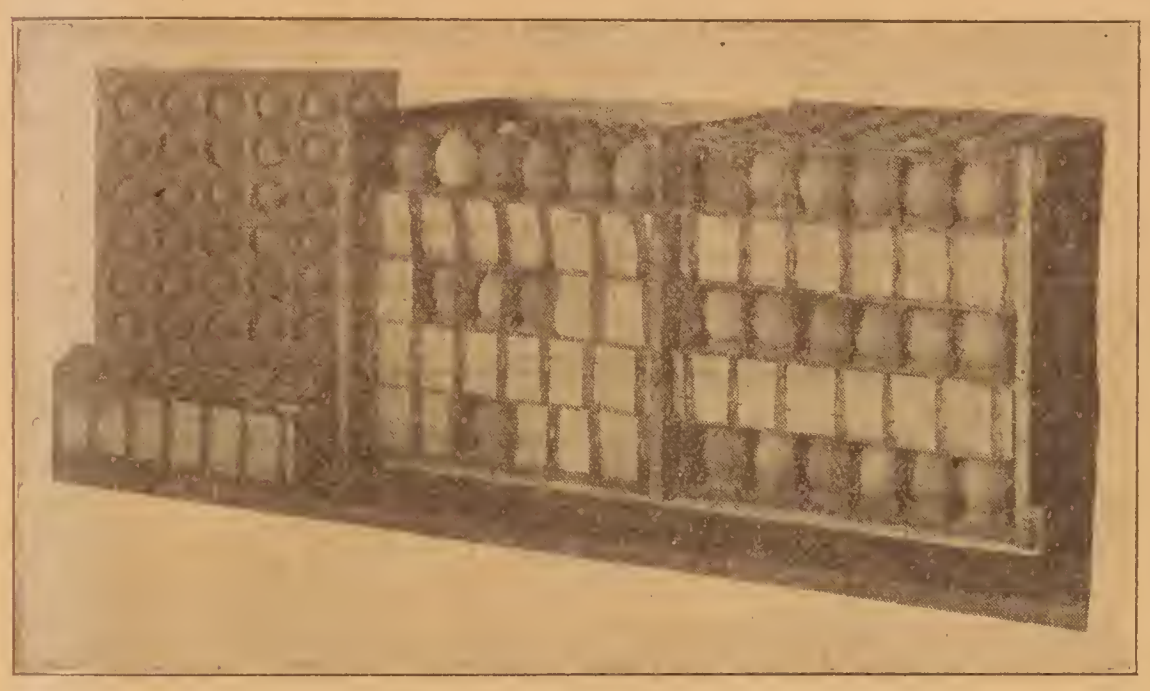
Many of the eggs are sold on trucks, standing in the street at the front, ready for immediate delivery anywhere in a given area, and many "on the dock." The bidding seemed to be spirited and the competition quite strong. Each lot was offered "ten crates with the privilege of the lot," until the whole lot was disposed of. There are five or six different producers' organizations on the Pacific Coast shipping eggs to New York, and usually all were represented with more or less of a shipment.

They are graded into extras, firsts, mediums, pullets, before they are shipped. The first day I was there, 800 cases were sold in 14 minutes. Another day 1,200 cases were disposed of in 20 minutes.

The Mercantile Exchange will have to look to its laurels, or the price-fixing power will pass from the Exchange to this auction room, at least for white eggs. I have long contended that a public auction for eggs and butter would give us an index of market values much better than "The Call" that has been held for so many years on the floor of the Mercantile Exchange behind closed doors.

A New Style Egg Flat

A new style egg flat seems to be attracting much attention in the market. It is to be used in the ordinary standard cases along with the standard honeycomb fillers in use so many years. Excellsior pads will be eliminated altogether, and also the ordinary smooth flats now in use. It is made with a cup-shaped, hammock-like projection under each of the 36 eggs in each filler. This removes the contact with the flat from the point of the eggs, where breakage usually occurs, to the entire oval of the end of the eggs. It also locks each egg to the flat, so that it cannot shift on the flat from a lateral shock, and each egg receives only the shock caused by its own weight.



A New Style Egg Flat That Avoids Much Breakage

It is being made by the Mapes Paper Products Corporation, with a factory out in Indiana. The name, by the way, belongs to another man by the name of Mapes, who is connected with the corporation and owns the patent on it. A trial lot of a million flats has already been made, and is being tested out both in domestic and foreign shipment with most gratifying results, particularly in export shipments. Some fifteen different lots have been exported in them with practically no reports of loss by breakage. The eggs are packed in the thin standard cases in general use here.

I heard of one exporter who packed a thousand cases, one-half in the usual heavy export cases and the other half with the new flats, and in thin cases, and he reports that the latter arrived in perfect condition, while there was serious breakage in the lot packed in heavy export cases at a cost for repacking of about four cents per dozen. The difference in profit, including both the cost of repacking in the heavy cases and the breakage, amounted to over $1,100 in favor of the 500 cases packed in the new flats. He has since exported 2,000 cases all packed in the new flats, and had another order for 2,500 cases to be shipped at once.

If European markets for storage eggs can thus be brought about 7 cents per dozen nearer to our doors, and the amount added to our tariff wall, egg production in the United States will receive a big benefit.

(*Continued on page* 171)

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Cut out the constant leaks of dairying that result from sick cows and disappointing milk-yield, and you will begin to reap the real profits. Stop looking upon cow diseases as inevitable; they CAN be prevented.

The cow's winter diet is hard on her digestive and genital organs—runs them down. Overfeeding of rich concentrates only aggravates the condition. What is needed is to keep the milk-making and digestive organs healthy enough to maintain top-notch production and at the same time throw off disease.

Kow-Kare has the medicinal properties to accomplish just that. It acts directly on the vital organs of the milch cow, toning up and giving strength. It is this marvelous rebuilding action that has made Kow-Kare famous in the treatment of cow diseases, such as Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Milk Fever.

We get thousands of letters each year, like this one from Jacob Germann, Farmingdale, Ill.

"I had three cows this Spring, one had garget, and one had milk fever, and one was done up completely from calving and could not get up or walk and I had a veterinarian with no good results. I began feeding Kow-Kare and she is able to go to pasture with the other cows now. I just know I would have lost the three if I had not had your medicine."

Remarkable increases in winter milk yield can be attained by feeding just a tablespoonful of Kow-Kare twice a day for one week in each month. Try it, and you will never go through a winter without Kow-Kare.

Our 32-page book on cow diseases, free. Kow-Kare is sold by feed dealers, general stores, and druggists. If your dealer is not supplied, we mail the remedy postpaid.

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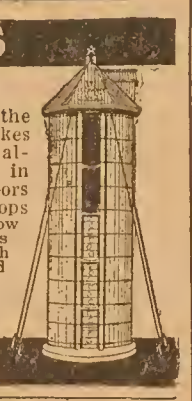

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The Accredited Herd Plan

Our First Experience With Reactors

By H. E. BABCOCK

I SIGNED up my first herd of mixed grades and purebreds to be tested under the accredited herd plan because I had decided to keep a purebred herd in the future. I figured then, and I still believe, that a purebred herd infected with tuberculosis is a very doubtful asset.

I adopted the accredited herd plan for two reasons: first, I could get larger indemnities should my cattle react; and, second, I would receive a Federal certificate allowing me to ship anywhere in the United States when finally I had a clean herd. I felt this certificate would be very valuable in advertising.

Soon after I signed up, a federally employed veterinarian came without cost to me to make the test. Several cows, mostly grades, reacted. He branded these with a T on the jaw, and we were ordered to segregate them—which was physically impossible for us to do. In time an appraiser came and set his values, and the cattle were slaughtered. The salvage—beef was high then—and the indemnities paid us well for the animals we had lost. We gave the barn and yard a little brushing up, sprayed a little disinfectant around, and congratulated ourselves on a job well done. We were free from tuberculosis.

More Reactors on Second Test

From time to time during the next six months we bought in purebreds. In all cases we required them to be tested. Then came our second test. Like the first tuberculin test of my experience, I shall never forget it. It seemed that every purebred cow that was worth more than $250 reacted. The interdermal method was used in testing, and I can see to-day those tell-tale swellings!

What had happened was this: The first test had undoubtedly left a bad spreader in the herd. Our clean-up had not been thorough enough. We had not exercised enough care in the purchase of our replacements. The result was disastrous to us. We had lost the state and federal money that had been spent to help us. And all because fundamentals had been lost sight of. This case of ours is typical; hundreds have had the same experience.

The Man Who Controls Tuberculosis

There is only one man who can eliminate tuberculosis from a herd of cattle. He is the man who controls the herd. In this fact lies, or should lie, the fundamental of any plan to combat the disease.

At best all that the accredited herd plan—or any other plan—can do is to supplement and make easy the work of the cattle owner. As originally laid out, the accredited herd plan was designed to help the man who desired and possessed the ability to fight the disease in his own herd and to give him official recognition when he had accomplished the job.

A Good Plan Gone Wrong

The whole plan was to be an agreement between the *owner* and the state and federal authorities covering a method of procedure. As worked out in practice, the plan has become the vehicle of well-meaning but mistaken officials who have put the cart before the horse. They have made the mistake—natural, from their viewpoint—of believing that bovine tuberculosis is eliminated by the activities of state and federal officials, by legislative appropriations, and by area operations, *instead of by the most careful and painstaking work upon the part of intelligent cattle owners.*

It is time the cattle owner had something to say. New York State is fortunate in having a man who knows cattle at the head of its Bureau of Animal Industry. It is not so fortunate in its federal tie-up. Official Washington tries to dominate. Official Washington is usually miles in the air; it makes its rules and regulations; it compiles its data, and it issues official reports that show astounding totals. In its conduct of the accredited herd plan, the United States Bureau of Animal Industry has proved no exception to the general rule.

The accredited herd plan, as anyone knows who has been through the game, depends on the cooperation of the cattle owner. This cooperation depends on his desire and ability. Desire may be stimulated by liberal indemnities, but ability is not a universal possession. It does not exist in areas; it is not developed by charity.

Some men can rid their herds of tuberculosis. Others never can. The men who can, should demand that indemnity money be reserved to help them. A lot of money is going to pay indemnities to owners who have neither the intention, nor the understanding of the disease, to control tuberculosis. Here lies the danger of the present system of testing under the accredited herd plan. Meanwhile totals are piling up, the public is becoming restive, and a lot of good men are without the government help to which they are entitled.

The situation is dangerous. The one group which can safeguard it is the owners of accredited herds. These are the men who know what is involved. They are the ones who want to insure the continuation of accredited herd work. With them it is not a matter of indemnities or areas, but of the protection of a system. They at least should be consulted more than they are.

TUBERCULOSIS MUST BE CONTROLLED

IF you are not reading Mr. Babcock's articles giving his personal experiences with cattle tuberculosis, you are missing the most valuable and most interesting discussion of this great problem that has been published. These articles are written from the standpoint of a farmer and owner of cattle and not from that of the veterinarian or Government official. Mr. Babcock has expressed the feeling of a man who sees the struggles of years in building a herd, end in the disappointment of failure because of this terrible disease.

There has been considerable written of late on the T. B. situation. There should be. If dairying is to endure, cattle tuberculosis must be controlled.—THE EDITOR.

JANUARY POOL PRICE 2.28½

The Dairymen's League Cooperative Association announces $2.28½ a hundred as its gross pool price for the month of January. From this 7½ cents per hundred are deducted by the Association for expenses of administration and advertising, and 10 cents a hundred are borrowed by the Association on its Certificate of Indebtedness plan. This leaves a net cash price to farmers for January milk of $2.11. This is the base price for milk containing 3 per cent butterfat in the 201-210-mile freight zone from New York City.

The gross price paid by the League for December milk was $2.82 a hundred. From that price 7 cents a hundred were deducted for expenses and 20 cents borrowed on Certificates of Indebtedness.

"As A Man Thinketh, So Is He"

(*Continued from page* 161)

Then, too, taxes are too high; people are overworked trying to make ends meet, and can not do so. In the old days we were satisfied with less of the things that we now seem to require. The more we have, the more we want, but we have to pay well for all that we get now-a-days. As a result of this striving for more and more of the world's goods, there is no time for

church work and little desire for it. In the old days, they all seemed to have a common interest in the community life. Now it seems to be each one for himself, not caring what becomes of the other fellow. If there were preachers enough to supply all of the churches, they would starve on the salary paid them, because it costs more to live now-a-days.

The only chance for the rural church is an infusion of new blood, having a desire to improve their homes, and a willingness to live there and enjoy life, as in the days gone by. In many places there are different nationalities, languages and mode of living. These different races in the same village or rural community have little in common with each other. Then how are you going to make them work together for the upbuilding of a church in a place like that? Where it is possible, I think they should all support the nearest village church and try to build up a strong central organization. One strong church led by a live minister of the gospel is worth more than four dead ones where they let the man of God leave without his pay. There is too much jealously and quarreling in the church of to-day to make it a power for good in the place.

I have been a farmer. I know the country church of the days gone by. I know the conditions of the country life to-day, and I am in favor of the old days and the old ways when we all attended church and Sunday School in the little church or school house, where we all went to school.

But what has become of the old days, the old ways, the old boys and the old girls, that mother and daddy knew? We have many of the modern improvements in our homes to-day and fine church properties in town and city, but what good are these fine churches if they are used only by the few and only for a short time on Sunday?—A. C. VAN LOON, Steuben Co., N. Y.

City Folks Tell Us

(*Continued from page* 169)

Another thing I noticed which should be brought to the attention of our producers. A demand has recently sprung up for eggs with light colored yolks. The people who want these are the very ones who want the best Jersey and New York State eggs. A difference of from 5 to 6 cents per dozen is willingly paid in order to secure those with light-colored yolks. This being so, it behooves us to try and meet the demand. It can best be done, I believe, by feeding white corn instead of yellow corn. It has been impossible as yet for me to buy white corn here. White hominy meal in the dry mash should also help toward the same end, and I shall try it as soon as possible if I can find a supply.

Many years ago wheat was at a price as low as corn, and I purchased a carload of wheat for my hens, feeding it exclusively in place of corn. It happened that at the time I was on a diet, by doctor's orders, including a poached egg on toast for my breakfast. I remember very distinctly that the yolks were very light in color while the wheat lasted, but when I changed back to yellow corn, the bull's-eye in my poached egg quickly changed to a rich yellow, reminding me of the bloom of health appearing on the cheek of a maiden who has been sick.

I have written to our G. L. F. about the matter, and they write me that as soon as there is any general demand for cracked corn and corn meal made from white corn, they will be glad to put it in stock. Readers who wish to get top quotations for their eggs will do well to write to the G. L. F. and ask to have the white corn listed in its quotations.

We note a great improvement in the old reliable American Agriculturist lately. It certainly can't be beat as a live wire farm paper that is out and out in the interest of the farmer and his whole family.—HORACE T. JOHNSON, Franklin Co., N. Y.

We like your paper very much, and would hardly know how to do without it. It helps to straighten the farmer's backbone and he needs it.—MRS. WM. SHUGERLAND, Albany County, N. Y.

STANDARDIZED DIP MEPH DIP DISINFECTANT

YOU MUST STOP BUG BURGLARS THAT SUCK THE LIFE BLOOD FROM YOUR LIVESTOCK

MEPH kills Lice and Mites. You can prevent and treat successfully.

CATTLE		POULTRY		SWINE
Ordinary Mange	Flies	Cholera	Infectious Leukemia	Cholera
Contagious Abortion	Screw Worms	Roup	Jiggers	Lice
Lice	Ringworms	Canker	Lice	Ordinary Mange
		Chickenpox	Mites	Sore Mouth

Progressive Breeders keep pace with progress by adopting the latest in remedies.

MEPH } A CHEMICAL COMBINATION } That Is Not Caustic, Injurious, Irritating, Inflammable

MEPH contains Soluble Sulphur, highly preventive of both infection and reinfection, and real insect bites.
MEPH disinfects, cleanses, and deodorizes at the same time that it kills various insects that carry Disease.
MEPH drives away Flies and Mosquitoes.
MEPH is unconditionally guaranteed. Money refunded if failure results from its proper use.

MEPH is highly indorsed by successful Breeders.
MEPH DIP costs $2.50 per gallon can, freight prepaid. One gallon makes 50-100 gallons of a satisfactory Dipping or Spraying solution. If your dealer can't supply you, write us and we will.

MEPH COMPANY, 160 South Street, NEW YORK CITY

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D. C. HOFF.....NESHANIC, N. J.

Green Mountain SILO
Will it Stand? YES
WRITE FOR CIRCULAR
THE CREAMERY PACKAGE MFG. CO.
350 WEST ST. RUTLAND, VT.

Natural Leaf Tobacco Mild or Strong. Extra fine smoking 5 lbs. $1.25; 10, $2.00; 20, $3.60. PIPE FREE; Hand-Picked Chewing, 5 lbs. $1.50; 10, $2.50.
TOBACCO GROWERS' UNION, Murray, Ky.

FOR GOOD SERVICE SHIP TO
M. ROTH & CO.
ESTABLISHED OVER 30 YEARS
EGGS
Prompt Returns
High Prices
Financially Reliable
185 DUANE STREET
NEW YORK
WRITE FOR SHIPPING TAGS

LADIES' FURS
We tan hides and make them into robes, coats, mittens and ladies' furs, at reasonable prices. Send us your hides and furs which you want remodeled and made into latest styles.
Robes and Coats at Wholesale Prices. Free Samples
References: Citizens State Bank, Milford, Indiana. Write to the
Milford Robe & Tanning Co., 237 ELM ST. MILFORD, IND.

A MORE MILK MESSAGE

More milk from your cows—better physical and health condition of the herd are the rewards that come to the dairyman or farmer who feeds Sugared Schumacher Feed.

Sugared Schumacher is essentially a Maintenance ration. It supplies the cow with an abundance of bodily nutrition—nourishment—and thus fits her to produce MORE MILK. It is giving unusual satisfaction to thousands of critical feeders. Feed

It's Sweet and the sweetest thing about it is—it makes MORE MILK (D-1)

SUGARED SCHUMACHER FEED

as the base or maintenance part of your ration along with cottonseed meal, gluten, Big "Q" or other concentrates and you will see a marked improvement in milk yield and general health condition of your herd. Composed of Corn, Oats, Barley, Wheat, finely ground and sweetened with Cane Molasses, Sugared Schumacher is highly nutritious and extremely palatable. It's sweet—cows like it—do better on it. Your dealer can supply you.

Mail Coupon For Free Book "The Dairy Herd"

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THIS IS *YOUR* MARKET PLACE

Classified Advertising Rates

Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Joncs, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dcaling with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantce subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS—BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper eannot guarantee the safe arrival of day-old ehicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall eontinue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

BREEDING COCKERELS—S. C. W. Leghorns. Puritas-Ferris mating 260-280 egg strain. Get yours now while they last, $2.00 to to $2.50 each. E. J. MALMGREN, Fisher, Pa.

PURE-BRED RINGLET BARRED PLYMOUTH ROCKS, E. B. Thompson's Strain; cockerels and pullets for sale. GEORGE DELBRIDGE, Maynard, Ohio.

HATCHING EGGS—Owen's S. C. Buff Orpingtons. S. C. W. Leghorns, 265-270 Kerlin egg strain. Satisfaction. Order early. HILCREST FARM, R. 3, Montrose, Pa.

STOCK EGGS—Chicks White Leghorns, Reds, Black Minorcas, White China Geese, prices reasonable. BROOKSIDE FARM, Keymar, Md.

MAMMOTH TOULOUSE GANDERS, $7 each, two old geese $6 cach. Also Barred Rock eockerels. CHARLES E. HALLOCK, Mattituck, N. Y.

S. C. WHITE ORPINGTON EGGS for hatching, $2.50 for 15; $10 per 100. Chicks, $25 per 100. WELLS M. DODDS, North Rose, N. Y.

S. C. BROWN LEGHORNS exclusively, booking orders for chicks, 15 years with one variety. L. K. DANIELS, Hammond, N. Y.

GENUINE Jersey Black Giant Cockerels. First eheek for $5 each takes them. MRS. CLAYTON WARREN, R. 2, McGraw, N. Y.

WHITE WYANDOTTE COCKERELS: Mammouth Pekin ducks. Pearl Guinea. LAURA DECKER, Stanfordville, N. Y.

TORMOHLEN FAMOUS EVERLAY Leghorn Cockerels; eggs for hatching; day-old chicks. SUNNYSIDE FARM, Emporium, Pa.

TOULOUSE GEESE, Rouen Ducks, Grey Call Dueks, Pearl Guineas. CRANE BROOK FARM, Port Byron, N. Y.

S. C. WHITE ORPINGTON COCKERELS, pullets, hatching eggs. MARTHA L. TAYLOR, Factoryville, Pa.

WHITE LEGHORN QUALITY CHICKS. Supcrior layers. Write NELSON'S, Grove City, Pa.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

TOULOUSE GANDERS AND B. R. COCKERELS. ROY HILTS, Gouverneur, N. Y.

BUFF ROCK COCKERELS — EDGEWOOD FARM, Ballston Lake, N. Y.

TURKEYS

TURKEYS—Hens and Toms—with size and quality. Pairs and trlos no akin. Mammoth Bronze, Bourbon Red, Narragansett, Whlte Holland. Write, WALTER BROS., Powhatan Point, Ohio.

BEES

HONEY—Purity guaranteed, box of four ten pound pails, here, clover-basswood, $5.60; buckwheat $4.80; 60 pound eans $7.80 and $6.30. Ten pounds prepaid, 3rd. zone, $2.05; buckwheat $1.80. WILCOX APIARIES, Odessa, N. Y.

HONEY—Guaranteed finest quality. Clover, 5 lbs., $1.10; 10 lbs., $2. Buckwheat, 5 lbs., $1; 10 lbs., $1.75; prepaid. M. BALLARD, North Branch, N. Y.

PURE HONEY—Circular free. ROSCOE F. WIXSON, Dept. A. Dundee, New York.

SHEEP BREEDERS

FOR SALE.—One hundred Delaine ewes; two to four years old; bred to lamb 1st of May. Also carload of grade Shropshire ewes. CHAS. W. BIRGE, Hector, Schuyler Co., N. Y.

CATTLE

TWO REGISTERED SHORTHORN BULLS, ready for service; also younger ones, of best quality. F. L. HANSEL, East Winfield, N. Y.

REAL ESTATE

DAIRY AND GRAPE FARM—Buildings and timber worth more than price of farm. $9,500 98½ acres; 2 miles village, 3 miles Lake Chautauqua; school 15 rods. Scll stock and equipment if wanted. Owner. JAY DEARING, Mayville, N. Y.

FOR SALE—91 acre fertile farm, one mile to village, 4,000 population, horses, cows, chickens, crops, tools, move right in. Write M. E. DAVIS, Canastota, N. Y.

DOGS AND PET STOCK

ENGLISH AND WELSH SHEPHERDS. Bred from natural herding instinct from Sires and Dams that work for a living, 4 month's old pups working with old dogs, pups can be trained in 6 months; now is the time to buy. GEORGE BOORMAN, Marathon, N. Y.

MALE HELP WANTED

WANTED — Poultryman; steady position; 1,500 layers kept; house, fuel, light, garden; must board one man; state age, wages expected and charges for boarding man. S. P. POULTRY FARM, Silver Hill, Md., Anacostia Station, Washington, D. C.

FEMALE HELP WANTED

WANTED—Protestant young woman for dairywork and to assist in home. Modern house and dairy. No milking. Neatness and good character absolutely essential. Good home. State wages desired. BOX 402, Harrison, New York.

SEEDS AND NURSERY STOCKS

BERRY, VEGETABLE, AND FLOWER PLANTS — Strawberry plants, earliest, latest, largest, most productive and everbearing varieties; raspberry, blackberry, dewberry, loganberry, gooseberry, currant, grape plants; asparagus, rhubarb, horseradish, hop, sage, mint roots; cabbage, cauliflower, celery, tomato, sweet potato, beet, onion, lettuce, egg plant, pepper, parsley plants; hollyhock, gallardia, delphinium, canterbury bells, foxglove, poppy, swect william, phlox and other perennial flower plants; aster, pansy, salvia, shapdragon, verbena, zinnia, strawflower, begonia, geranium, and other annual flower plants; dahlia, canna, gladiolus, peony, Iris bulbs; roses, shrubs. Catalogue free. HARRY D. SQUIRES, Hampton Bays, N. Y.

DAHLIAS—$1.50 per dozen, labeled; $2 per 20, not labeled. Decoratlve, peony, show cactus. Circular; also white Eskimo puppies, $15 and $20. MRS. HOWARD HOLSINGER, Denton, Md.

STRAWBERRY — Black Raspberry Plants. Wait! Don't order your plants until you get our prepaid prices. We can save you money and furnish the quallty. F. G. MANGUS, Pulaski, N. Y.

RED RASBERRY AND BLACKBERRY PLANTS. Hardy Northern grown, booking orders now for spring delivery, write for prices. J. T. EAGAN, Lebanon, N. Y.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

SEED POTATOES—Russet Rural Variety. Selected twelve years. FAIRACRES POTATO FARM, E. R. SMITH, Specialist, Kasoag, N. Y.

BULBS—Dahlias. Ten different colors, postpaid $1.00. Winners State Fair and New York shows. WILFRED ANDERSON, Millbrook, N. Y.

CERTIFIED SEED POTATOES—Sir Walter Raleigh and Russets. ERWIN A. WEEKS, Locke, N. Y.

STANCHIONS

CRUMB'S STANCHIONS are guaranteed to please the purchaser. They are shipped subject to trial in the buyer's stable. They are right. Send for booklet. WALLACE B. CRUMB, Box A, Forrestville, Conn.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

HELP WANTED

THE OLIVIA SAGE SCHOOL OF PRACTICAL NURSING offers one year's course in special bedside nursing to limited number of women. Classes formed quarterly. Pupils receive maintenance, uniform and salary. Apply to DIRECTOR, NEW YORK INFIRMARY FOR WOMEN AND CHILDREN, 321 East 15th St., New York.

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free sample case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

INCUBATOR

FOR SALE — Candee Monmouth Incubator, 2,400 egg capacity; used two years; perfect condition; $175.00 crated f. o. b. station. H. C. LOCKWOOD, Butler, N. J.

CATTLE BREEDERS

GUERNSEY BARGAIN

Heifer and Bull Calf for $195.00 or Heifer for $140.00 and Bull for $65.00.

Sire a grandson of Ne Plus Ultra. Dams of both close to Ne Plus Ultra through different sons. Calves nicely marked with good individuality. Pedigrees and photo of sire on application. Herd Federally accredited.

RALPH E. & FLOYD S. BARLOW, Cooperstown, N. Y.

27 YORKSHIRE and CHESTER WHITE CROSSED

6 to 7 weeks old, $5.50 each; and 30 Chester and Berkshire crossed, 7 to 8 weeks old, $6 each; these pigs are well developed and will stand the cold weather; these pigs are from the best of stock—they will make a large hog in 6 months. I will ship any part of the above lots C. O. D. for your inspection, or send check or money order.

WALTER LUX, 388 Salem St., WOBURN, MASS.

3 Aberdeen-Angus The Beef Breed

Cows and heifers, some with ealves at foot, $100. Young builS also.

G. CARLTON FANCHER, New Caanan, Conn.
L. M. TAYLOR, Millerton, N. Y.
ARDSON FARM, Armonk, N. Y,

HIGH-GRADE HOLSTEIN COWS

fresh and elose by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.

Browneroft Farm McGRAW New York

HOLSTEINS

A number of high-grade male and female calves for sale. Sired by KING INKA KORNDYKE SPRING FARM 2d, and out of top notch producing high-grade Holsteins; cheap while they last. STRICKLAND FARM, RD-6, CARTHAGE, N. Y.

BULL and HEIFER CALVES -Attractive prices. The old reliable Orchard Grove herd milking shorthorn.
Hotehkiss, West Springfield, Erie Co., Pa.

SWINE BREEDERS

REG. DUROCS — From prize-winning herd. Premiums from 10 fairs fall 1922. Orion Cherry King and Top Col. strain.
J. W. COX & SON, R. 5, NEW CASTLE, PA.

O. I. C's. VIEWMONT FARM, MAINVILLE, PA.
Now ready, choice fall pigs from School Master Callaway Edd and Wildwood blood lines. Pairs not related. Good enough to ship anywhere C. O. D.

Big Type Polands boars, sows and pigs for sale, good ones, low prices. Write me. G. S. HALL, FARMDALE, OHIO.

BABY CHICKS

White Leghorn CHICKS

Write Quick. Free feed—Liberal Discount on early orders: World-Famous 265-270, and 280-326 egg strain trapnested, pedigreed English American S.C.W. Leghorns, Heavy Layers. Best Payers. Strong healthy chicks. 100% live delivery guaranteed, p.p. *Big valuable catalog Free.*

KERLIN'S GRAND VIEW POULTRY FARM, Box 41, Center Hall, Pa.

Live Stock Offerings

either for sale or purchase. Can best be reached through a live medium. Classified advertisements in the AMERICAN AGRICULTURIST bring substantial results from both near and far.

RAW FURS AND TRAPPERY

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

MISCELLANEOUS

WILL SELL my Geiser saw mill 30-ft. carriage, with top saw, log turner, saw-dust elevator; also 12-25 Mogul tractor; all in good shape; at a bargain. LEWIS SHAFER, Arlington, N. Y.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

HIGH-CLASS PRINTING — You are judged by the stationery you use. You have tried the rest, now get the best. Samples. R. T. ANDRE, Chicora, Pa.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

UNLEACHED—Ashes. GEORGE STEVENS, Peterborough, Ontario.

CATTLE BREEDERS

Yield!

Every man who milks cows for a living knows that *Yield* is one of the best reasons for Holsteins.

Yield To You Will Mean:

Dependable Cash Income - Profits
Bank Account - Independence
Better Things for the Family

Holsteins hold all world's records and average highest over all breeds for both butterfat and milk yield.

Let Us Tell You the Story of the Holstein Cow.

EXTENSION SERVICE,
The Holstein-Friesian Association of America
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HOLSTEINS

Holstein Cows For Sale

Two earloads of fancy, large grade Holsteins that are just fresh or due to freshen soon.

60 cows that are bred to freshen during February, March and April. All young, large and heavy producers.

A. F. SAUNDERS
Telephone 1476 CORTLAND, N. Y.

LARGE YORKSHIRE BOARS
FOR SALE

Well-grown for their age and vigorous. Ready for immediate service. Priced at farmers' prices.

HEART'S DELIGHT FARM, Chazy, N. Y.

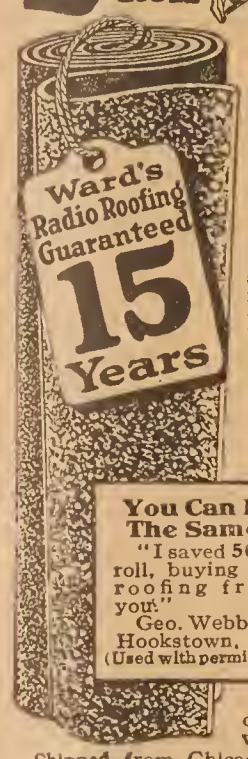
HOLSTEIN BULL Born Dec. 7th, 1921. Sired by a 33-pound Son of King of the Pontiacs, Dam is 24.95-pound daughter Changeling Butter Boy. He is nicely marked, splendid individual, well grown and ready for service. Priced to sell.
FRED. A. BLEWER
Owego, N. Y.

HOLSTEINS

Two car loads high-elass grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. J. A. LEACH, CORTLAND, N. Y.

85 Pound Standard
Slate Surfaced
Roofing
$2.00 Per Roll

Lay Your Own Roofing This Spring



Do it in your spare time. No experience needed. Only hammer and jack knife required. Use our standard Radio Slate-Surfaced Roofing.

Approved by Fire Underwriters
Spark proof. Fire resisting. Better protection than wood shingles. Extra durable and not affected by heat or cold.

Best Standard Quality You Can Buy
Only $2.00 per roll (enough to cover 100 sq. ft.). For old or new roofs, or over old wood shingles.

Red or Green
Non-fading crushed slate surface beautifies as well as protects your home. Guaranteed for 15 years but should last longer.

You Can Do The Same!
"I saved 50c a roll, buying my roofing from you."
Geo. Webber, Hookstown, Pa.
(Used with permission)

Send for FREE SAMPLES
It puts you under no obligation to buy. $2.00 per roll includes all nails and cement. (Add 8c if wanted with extra long nails.)

Shipped from Chicago, Kansas City, St. Paul; York, Pa.; Southern, Ill., or New Orleans, La. ($2.10 per roll from Kansas City or St. Paul.)

Write to our house nearest you. Address Dept. C-1

Montgomery Ward & Co
Chicago Kansas City St. Paul Fort Worth Portland, Ore

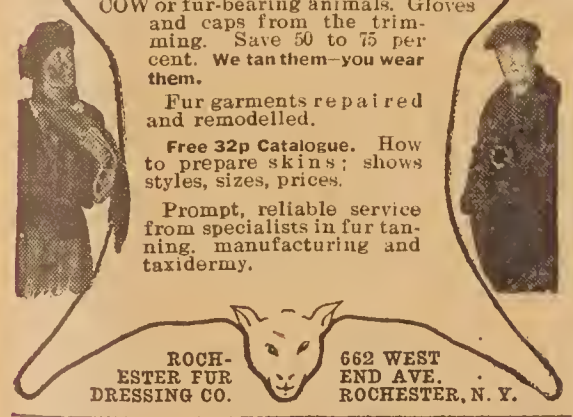
WE TAN THEM—YOU WEAR THEM
—YOUR OWN HORSE AND COW HIDES

Stylish garments, warm and durable, made to order from HORSE, COW or fur-bearing animals. Gloves and caps from the trimming. Save 50 to 75 per cent. We tan them—you wear them.

Fur garments repaired and remodelled.

Free 32p Catalogue. How to prepare skins; shows styles, sizes, prices.

Prompt, reliable service from specialists in fur tanning, manufacturing and taxidermy.



ROCHESTER FUR DRESSING CO. 662 WEST END AVE. ROCHESTER, N. Y.

MINERAL COMPOUND FOR SYMPTOMS OF HEAVES
in use over 50yrs

Booklet Free

NEGLECT Will Ruin Your Horse

Sold on Its Merits

SEND TODAY AGENTS WANTED

$3 Package guaranteed to give satisfaction or money refunded. $1 Package sufficient for ordinary cases. Postpaid on receipt of price. Write for descriptive booklet

MINERAL HEAVE REMEDY CO., 451 Fourth Ave., Pittsburg, Pa

FEEDING

For BETTER POULTRY, HOGS and STOCK

STRUVEN'S FISH MEAL

is a proved success. It is now recognized as the necessary supplement for protein and mineral elements in complete feeding. Made from fresh, whole fish, finely ground.

Write to-day for a copy of our valuable feeding instructions—free!

CHAS. M. STRUVEN & CO.
114-C S. Frederick St. Baltimore, Md.

Made of California Redwood, covered with galvanized iron, double walls, air space between, built to last for years; deep chick nursery, hot water heat, copper tanks. Shipped complete, set up, ready to run, freight paid.

140 EGG INCUBATOR WITH BROODER $19.75
260 EGG INCUBATOR, ALONE, ONLY . 23.50
260 EGG INCUBATOR, WITH BROODER 32.90
30 days' trial—money back if not O. K.—FREE Catalog
Ironclad Incubator Co., Box 103 Racine, Wis.

Adjustments and Collections

Service Bureau Reports Many Cases Amicably Settled

"A DAY or so ago, I received a check from the fur house to which I had shipped my furs, and with it came a very nice letter explaining things. There had been a misunderstanding on both sides, and as a result, I sent them another lot. They promised more promptness in handling it, and I am sure that since this has been straightened out our transactions will be perfectly satisfactory."

It is thus that one of our subscribers wrote us about a case which we had handled for him. A reliable fur house of New York which advertises in the American Agriculturist had received furs from him, and he did not feel that they had paid a fair price for what he shipped. The American Agriculturist immediately took the matter up with the advertiser, and as a result Mr. O. immediately heard from them. His letter tells the story.

WE COLLECT $114.90

"We received the check for $114.90. We are very much obliged to you for your services." The check was in payment for a large shipment of turkeys made before Thanksgiving Day to a Boston firm. It was the end of January before the subscriber received the remittance, and then it was only due to the efforts of the Service Bureau that the check was sent.

Mrs. J. C. C. of Richville, N. Y., wrote us, however, that the firm mailed the check within a few days after receiving our communication urging them to do so. It was a case which we did not find difficult to settle, but which, if the subscriber had handled herself, might have dragged along for some time before reaching a satisfactory outcome.

BANTAMS PAID FOR

"Thank you very much for collecting the $9.00 for me. You have been of great assistance in the matter." Stanley Saunders of Alfred, N. Y., turned over to us, early in December, a case which concerned the sale of prize-winning bantams. He had never been paid for the bantams, and the American Agriculturist immediately undertook to collect for him. It took a little while to get in touch with the recipient, but finally the check was forthcoming and the matter amicably adjusted.

SLOW, BUT IT CAME AT LAST

Mr. C. E. M. had to wait six weeks to get his check, and even then he did not think it was for a fair amount, but he had had so much difficulty in collecting from the company that he was glad to accept the amount of $51.32 for the poultry which he had sold to a Boston firm.

In this case, also, it was due to the efforts of the American Agriculturist that the firm made remittance, and although Mr. M. felt that the price was too low, he realized that he might have easily been out the entire amount.

MOLASSES *IS* SLOW

A lost case of molasses which started in Vermont and never arrived at the New York farm for which it had been been ordered, recently caused a good deal of trouble.

However, the Philadelphia branch of the firm made the order good and blamed the present embargo on the railroads for the slowness in delivery. In any case, the customer received his molasses and that was what he desired.

A CARBIDE COMPANY VANISHES

Ever since last summer, the Service Bureau has been flooded with inquiries about different carbide companies. One of the names which we received was that of the Imperial Carbide Company, which had been taking orders, but never seemed to ship them. The offices of the firm was usually given as Kansas City, Mo., although the American Agriculturist discovered that the Imperial Carbide Company of Keokuk, Ia., was supposed to have some connection with the firm.

We have recently been advised by the Post Office that this firm went out of business some time ago. At first, according to the Postmaster of Kansas City, they left a forwarding address, but then they dropped out of sight altogether. This seems to be another of the many dubious concerns which solicited orders without a reputable organization to back up the delivery. We are sorry that so many of our readers were taken in, and will have to write it off as another swindle.

"THANKS" OUR BEST PAYMENT

In thanking the American Agriculturist for obtaining a check for $15.75 from a New York firm which had not made good on an order, Mr. W. M. Barmore of Gerry, N. Y., offered to pay any necessary collection charges. As usual, we wrote him that the Service Bureau lived up to its name. In other words, it is here to render service and not to make money. We were glad that we had succeeded in getting the money, but all the payment we wanted was the satisfaction of our subscriber.

"ALMOST A MIRACLE"

"They surely do come across when the Old Reliable American Agriculturist goes after them. I am glad to inform you that I received the check for the full amount. This seems almost a miracle, when I have been writing to them ever since the middle of November and could get nothing but promises of what they would do."

It was thus that Mrs. E. E. McF. of Pennsylvania wrote to the Service Bureau recently. It had taken some time to make a prominent Mail-order House see the light in regard to a case which they had neglected, but the results were so satisfactory that it was worth the effort of bringing the case to a conclusion.

A SMALL SUM, BUT WE GOT IT

The sum of $1.69 may not seem a large one, but when you take into consideration the difficulty of making out an order, sending it, waiting for it to be delivered, writing letters of inquiry and the other details involved, it makes it all the more annoying that the order was such a small one and was so badly handled.

A check for $1.69 was recently received from the Leonard-Morton Company in settlement of a case put into our hands by Mrs. George Franklin of New York State. Instead of receiving a pair of child's shoes she had ordered, a pair of woman's slippers was sent her, and, upon returning them, she failed to get any satisfaction from the company until the American Agriculturist took the matter in hand.

Place Orders Early—By this time all incubator and brooding equipment should be ordered. If you are not going to hatch your chicks, your order for chicks should be placed immediately to insure delivery when you wish them.

Give Your Cows a Chance!

Cows produce a heavier flow of milk when kept in comfortable, sanitary quarters. They waste less feed, require less work and are not so susceptible to disease.

Whether your herd is large or small, give your cows a chance to produce to full capacity and pay larger profits with less waste and half the work—safeguard yourself against heavy loss from disease—with sanitary pasture comfort

LOUDEN
Steel Stalls and Stanchions

Most sanitary—no germ-holding crevices with famous Louden dust-proof couplings. Simple correct design of Louden Stalls makes clumsy, dirt-catching attachments unnecessary. So strong they will last as long as the barn stands.

Louden Swinging Stanchion gives cow pasture comfort in the barn, allows her to freely turn her head and card herself, to lie down naturally and rest with head against side of body and to get up with greatest ease. The most perfect cow-tie made and only one that can successfully be used with high built-up manger curb, which prevents cows from wasting feed by working it back on to the stall floor—a great saving in itself each year.

GET THESE TWO FREE BOOKS

Louden Catalog—Its 224 pages picture and describe more than 100 labor-savers for the barn. Louden Barn Plan Book—a 112-page encyclopedia of extremely helpful barn-building information. Shows how to get a better all-around barn at less cost. Both books sent free to farmers upon request, no cost or obligation. Write for them today.

The Louden Machinery Company
11 Court St. (Est. 1867) Fairfield, Iowa

30 DAYS FREE TRIAL **Post Yourself**

INVESTIGATE—Get facts on Walsh No-Buckle Harness, before buying any harness. Let me send you this wonderful harness on 30 days' free trial. See for yourself this harness which outwears buckle harness because it has no buckles to tear straps, no friction rings to wear them, no holes in straps to weaken them. Highest possible quality of leather. Proven success on thousands of farms in every state for over 8 years.

Try Walsh Harness on Your Team
Return if not satisfactory. Costs less, saves repairs, wears longer, fits any size horse perfectly. Made in all styles, back pads, side backers, breechingless, etc. EASY PAYMENTS—$5 after 30 days' trial—balance monthly. Write for catalog, prices, easy terms.

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WALSH HARNESS CO.
122 Keefe Ave., Milwaukee, Wis.
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FREE Walsh Harness Book Tells the Why and How WRITE FOR IT TODAY

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PROVED BEST by 80 years' use. It will please you. The ONLY PAINT endorsed by the "GRANGE" for 47 years.
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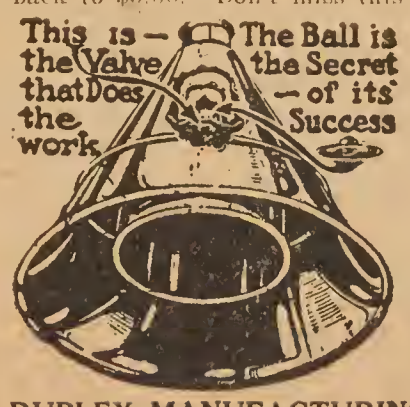
O. W. Ingersoll, 252 Plymouth St., Brooklyn, N. Y.

KENTUCKY NATURAL LEAF TOBACCO
Chewing, 5 pounds, $1.75; 10 pounds, $3.00; 20 pounds, $5.25. Smoking, 5 pounds, $1.25; 10 pounds, $2.00. Send no money. Pay when received. FARMERS' CO-OPERATIVE TOBACCO UNION, Paducah, Ky.

$5.00 Solid Copper Vacuum Washer, $2.50

WILL LAST A LIFETIME!—GET ONE TODAY

If you want the very best that can be made, here it is. We have sold over 300,000 tin washers, and they have given perfect satisfaction, but, of course, the **solid copper** is much better. We are just selling a few at $2.50 to introduce them. After which the price will go back to $5.00. Don't miss this wonderful chance. Tell your friends about it. SEND TODAY.



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DUPLEX MANUFACTURING CO., Dept. C-112, DETROIT, MICH.

The Valley of the Giants—*By Peter B. Kyne*

UPON his return from the office that night, Bryce Cardigan found his father had left his bed and was seated before the library fire.

"Feeling a whole lot better to-day, eh, pal?" his son queried.

John Cardigan smiled. "Yes, son," he replied plaintively. "I guess I'll manage to live till next spring."

"Oh, I knew there was nothing wrong with you, John Cardigan, that a healthy check wouldn't cure. Pennington rather jolted you, though, didn't he?"

"He did, Bryce. I never doubted but that Pennington would snap up the property the instant I offered to sell. Hence his refusal, in the face of our desperate need for money, almost floored your old man."

"Well, this gives us a fighting chance, partner. And after dinner you and I will start brewing powerful bad medicine for the Colonel."

"Son, I've been sitting here simmering all day." There was a note of the old fighting John Cardigan in his voice. "Even if I must sit on the bench and root, I've not reached the point where my years have begun to affect my thinking ability." He touched his leonine head. "I'm as right as a fox up-stairs, Bryce."

"Right-o, Johnny. We'll buck the line together."

Accordingly, dinner disposed of, father and son sat down together to prepare the plan of campaign. The old man spoke first.

"We'll have to fight him in the dark."

"Why?"

"Because if Pennington knows, or even suspects who is going to parallel his railroad, he will throw all the weight of his capable mind, his wealth and his ruthlessness against you—and you will be smashed. You must do more than spend money. You will have to outthink him, outwork him, outgame him. You have one advantage starting out. The Colonel doesn't think you have the courage to parallel his road. He knows you haven't the money; and he is morally certain you cannot borrow it, because you haven't any collateral to secure your note.

"We are mortgaged now to the limit, and our floating indebtedness is very large; on the face of things, we're helpless; and unless the lumber-market stiffens very materially this year, by the time our hauling-contract with Pennington's road expires, we'll be back where we were before we sold the Giants. So, all things considered, the Colonel, will be slow to suspect us of having an acre, but, by jinks, we have it, and we're going to play it."

"No," said Bryce, "we're going to let somebody else play it for us. The point you make—that we must remain absolutely in the background — is well taken."

"Very well," agreed the old man. "Now let us proceed to the next point. You must engage some reliable engneer to look over the proposed route of the road and give us an estimate of the cost of construction."

"For the sake of argument we will consider that done, and that the estimate comes within the sum Gregory is willing to advance us."

"Your third step, then, will be to incorporate a railroad company under the laws of the State of California."

"I THINK I'll favor the fair State of New Jersey with our trade," Bryce suggested dryly. "When Pennington bought out Henderson, he incorporated the Laguna Grande Lumber Company under the laws of the State of New Jersey, home of the trusts. There must be some advantage connected with such a course."

"Have it your own way, boy. What's good enough for the Colonel is good enough for us. Now, then, you are go-to incorporate a company to build a road twelve miles long—and a private road, at that. That would be fatal. Pennington would know somebody was going to build a logging-road, and regardless of who the builders were, he would have to fight them in self-protection. How are you going to cover your trail, my son?"

Bryce pondered. "My road cannot be private; it must be a common carrier, and that's where the shoe pinches. Common carriers are subject to the rules and regulations of the Railroad Commission."

"They are wise and just rulers," commented the old man, "expensive to obey at times, but quite necessary. Objection overruled."

"Well, then, since we must be a common carrier, we might as well incorporate for the purpose of building a road from Sequoia to Grant's Pass, Oregon, there to connect wth the Southern Pacific."

John Cardigan smiled. "The old dream revived, eh? Well, the old jokes always bring a hearty laugh People will laugh at your company, because folks up this way realize that the construction cost is prohibitive, not to mention the cost of maintenance, which would be out of all proportion to the freight area tapped."

"Well, since we're not going to build more than twelve miles of our road during the next year, and probably not more than ten miles additional during the present century, we won't worry over it. It doesn't cost a cent more to procure a franchise to build a road from here to the moon. If we fail to build to Grant's Pass, our franchise to build the uncompleted portion lapses and we hold that portion which we have constructed. That's all we want to hold."

"How about rights of way?"

"They will cost little, if anything Most of the landowners along the proposed route will give us rights of way free gratis for nothing, just to encourage the lunatics. Without a railroad the land is valueless; and as a common carrier they know we can condemn rights of way. Moreover, deeds can be drawn with a time-limit, after which they revert to the original owners."

"GOOD strategy, son! And certainly as a common carrier we will be welcomed by the farmers and cattlemen along our short line. We can handle their freight without much annoyance and perhaps at a slight profit."

"Well, that about completes the rough outline of our plan. The next thing to do is to start and keep right on moving. We have a year in which to build our road; if we do not hurry, the mill will have to shut down for lack of logs, when our contract with Pennington expires."

"You forget the manager for our new corporation—the vice-president and general manager. The man we engage must be the fastest and most convincing talker in California. And he must talk in millions, look millions, and act as if a million dollars were equivalent in value to a redwood stump. In addition, he must be a man of real ability and a person you can trust implicitly."

"I have the man. His name is Buck Ogilvy and only this very day I received a letter from him begging me for a small loan. I have Buck on ice in a fifth-class San Francisco hotel."

'Tell me about him, Bryce."

"Don't have to. You've just told me about him. However, I'll read you his letter. I claim there is more character in a letter than in a face."

Here Bryce read aloud:

"Golden Gate Hotel—Rooms fifty cents —and up.

"San Francisco, California,
"August fifteenth."

"MY DEAR CARDIGAN: Hark to the voice of one crying in the wilderness; then picture to yourself the unlovely spectacle of a strong man crying.

"Let us assume that you have duly considered. Now wind up your wrist and send me a rectangular piece of white, blue, green, or pink paper bearing in the lower right-hand corner the magic words *'Bryce Cardigan'*—with the little-up-and-down hook and flourish whch lends value to otherwise worthless paper. Five dollars would make me chirk up; ten would start a slight smile; twenty would put a beam in mine eye; fifty would cause me to utter cries of joy, and a hundred would inspire me to actions like unto those of a whirling dervish.

"I am so flat busted my arches make hollow sounds as I tread the hard pavements of a great city, seeking a job. On the brink of despair, I think of old times and happier days and particularly of that pink-and-white midget of a girl who tended the soda-fountain at Princeton. You stole that damsel from me, and I never thanked you. Then I remembered you were a timber-king with a kind heart; so I looked in the telephone book and found the address of the San Francisco office of the Cardigan Redwood Company. You have a mean man in charge there. I called on him, told him I was an old college pal of yours, and tried to borrow a dollar. While he was abusing me, I stole from his desk the stamped envelope which bears to you these tidings of great woe; and while awaiting your reply, be advised that I subsist on the bitter cud of reflection, fresh air, and water.

"When you knew me last, I was a prosperous young contractor. Alas! I put all my eggs in one basket and produced an omelet. Took a contract to build a railroad in Honduras. Honduras got to fighting with Nicaragua; the Nicaraguan army recruited all my laborers and mounted them on my mules and horses, swiped all my grub, and told me to go home. I went. Why stay? Moreover, I had an incentive consisting of about an inch of bayonet —fortunately not applied in a vital spot.

"Hurry, my dear Cardigan. I finished eating my overcoat the day before yesterday.

"Make it a hundred, and when I get it, I'll come to Sequoia and kiss you. I'll pay you back sometime—of course.

"Wistfully thine—BUCK OGILVY.

"P. S.—Delays are dangerous, and procrastination is the thief of time. —B.'"

John Cardigan chuckled. "I'd take Buck Ogilvy, Bryce. He'll do. Is he honest?"

"He was, the last time I saw him."

"Then wire him a hundred. Don't wait for the mail."

"I have already wired him the hundred. In all probability he is now out whirling like a dervish."

"Good boy! Well, you'd better leave for San Francisco to-morrow and close your deal with Gregory. Hire a good lawyer to draw up the agreement between you; be sure you're right, and then go ahead—full speed. When you return to Sequoia, I'll have a few more points to give you. I'll mull them over in the meantime."

CHAPTER XX

WHEN Bryce Cardigan walked down the gangplank in San Francisco, the first face he saw was Buck Ogilvy's. Mr. Ogilvy wore his overcoat and a joyous smile, proving that all was well; he pressed forward and thrust forth a great speckled paw for Bryce to shake. Bryce ignored it.

"Why, don't you remember me?" Ogilvy demanded, "I'm Buck Ogilvy."

Bryce looked him in the eye and favored him with a lightning wink. "I have never heard of you Mr. Ogilvy. You are mistaking me for someone else."

"Sorry," Ogilvy murmured. "My mistake: Thought you were Bill Kerrick, who used to be a partner of mine. I'm expecting him on this boat, and he's the speaking image of you."

Bryce nodded and passed on, hailed a taxicab, and was driven to the San Francisco office of his company. Five minutes later the door opened and Buck Ogilvy entered.

"I was a bit puzzled at the dock, Bryce," he explained as they shook hands, "but decided to play safe and then follow you to your office. What's up? Have you killed somebody, and are the detectives on your trail?'

"No, I wasn't being shadowed, Buck, but my principal enemy was coming down the gangplank right behind me, and——"

"So was my principal enemy," Ogilvy interrupted. "What does our enemy look like?"

"Like ready money. And if he had seen me shaking hands with you, he'd have suspected a connection between us later on. Buck, you have a good job—about five hundred a month."

"THANKS, old man. I'd work for you for nothing. What are we going to do?"

"Build twelve miles of logging railroad and parallel the line of the old wolf I spoke of a moment ago."

"Good news! We'll do it. How soon do you want it done?"

"As soon as possible. You're the vice president and general manager."

"I accept the nomination. What do I do first?"

"Listen carefully to my story, analyze my plan for possible weak spots, and then get busy, because after I have provided the funds and given the word 'Go!' the rest is up to you. I must not be known in the transaction at all, because that would be fatal."

"I listen," said Buck Ogilvy, and he inclined a large speckled ear in Bryce's direction, the while his large speckled hand drew a scratch-pad toward him.

Three hours later Ogilvy was in possession of the most minute details of the situation in Sequoia, had tabulated, indexed, and cross-indexed them in his ingenious brain and was ready for business—and so announced himself.

"And inasmuch as that hundred you sent me has been pretty well scattered," he concluded, "suppose you call in your cold-hearted manager, and give him orders to honor my sight-drafts. If I'm to light in Sequoia looking like ready money, I've got to have some high-class, tailor-made clothes, and a shine and a shave and a shampoo and a trunk and a private secretary. If there was a railroad running into Sequoia, I'd insist on a private car."

This having been attended to, Mr. Ogilvy promptly proceeded to forget business and launched forth into a recital of his manifold adventures since leaving Princeton; finally the amiable and entertaining Buck took his departure with the announcement that he would try to buy some good second-hand grading equipment and a locomotive, in addition to casting an eye over the labor situation and sending a few wires East for the purpose of sounding the market on steel rails. Always an enthusiast, in his mind's eye Mr. Ogilvy could already see a long trainload of logs coming down the Nothern California & Oregon Railroad, as he and Bryce had decided to christen the venture.

"N. C. & O.," Mr. Ogilvy murmured. "Sounds brisk and snappy. I like it. Hope that old hunks Pennington likes it, too. He'll probably feel that N. C. & O. stands for *Northern California Outrage.*"

When Bryce Cardigan returned to Sequoia, his agreement wth Gregory had been signed, sealed, and delivered; the money to build the road had been

(*Continued on page* 175)

WHAT HAS HAPPENED IN "THE VALLEY OF THE GIANTS"

THE struggle between old John Cardigan, pioneer in the redwoods country, and Colonel Seth Pennington, rival operator, has centered around the Valley of the Giants, Cardigan's favorite grove which block's the Colonel's holdings.

It seems as though the feud has descended to young Cardigan and the Colonel's niece, Shirley Sumner. But the latter, angered by her uncle's unscrupulous methods secretly buys the Valley, planning to force peace. She does not know that Bryce is about to parallel Pennington's logging road, as a last desperate measure to save the Cardigan fortunes.

What Corn Shall I Plant?

(*Continued from page* 163)

the case of Leaming. There was just 70 per cent variation between the lowest and highest variety in the proportion of dry matter in a ton of these varieties at the silage stage. In the following table the different kinds of corn have been arranged in order, the first containing the most, according to the actual amount of dry matter that they contained per acre on September 10:

Home-grown Luce's Favorite.
Cayuga County Cornell 11.
Cornell 12.
Hall's Gold Nugget Favorite.
Long Island Luce's Favorite.
Westbranch Sweepstakes.
Onondaga White Dent.
Leaming.
Home-grown Cornell 11.
Weber's Dent.
Bloody Butcher.
Alvord's White Cap Dent.
King Phillip.
Smut Nose.
Early Huron.
Cook's Cross.

When it came time to husk the corn and determine the yield in business of shelled corn per acre from each kind, the work of the Department of Plant Breeding of the college showed up well. In running over the list, one can see that there are four kinds which this department has been instrumental in developing, the two strains of Cornell 11, Cornell 12 and Weber's Dent.

VARIETIES	Days to Maturity	Green weight per acre	Dry weight per acre	Percent loss in drying	Green weight of stalks per acre	Dry weight of stalks per acre	% wt. of stalks lost in drying	Green weight of ears	Dry weight of ears	Percent of wt. lost in drying	Shelled corn, bu. per acre	Length of stalk in inches
King Philip	100	17.5	6.3	64	13.2	3.0	77	4.3	3.3	28	94	62
Smut Nose	100	17.2	6.3	63	12.8	3.2	75	4.4	3.1	29	89	62
Cook's Cross	100	14.7	6.3	57	9.6	2.6	73	5.1	3.7	27	106	68
Alvord's White Cap Dent	100	17.5	6.9	61	12.7	3.0	76	4.8	3.9	19	111	65
Webber's Dent	110	16.8	7.0	58	11.7	2.9	75	5.1	4.1	20	117	68
Early Huron	110	17.3	6.3	64	12.2	2.8	77	5.1	3.5	31	100	62
Home Grown Cornell 11	110	17.4	7.0	54	12.3	3.0	76	5.1	4.0	22	114	74
Cornell 11	110	17.4	7.5	51	12.1	3.3	73	5.3	4.2	21	120	74
Onondaga Western Dent	120	19.7	7.1	64	14.5	3.4	77	5.2	3.7	29	106	76
Hall's Gold Nugget	120	20.1	7.4	63	14.9	3.5	77	5.2	3.9	25	111	80
Cornell 12	120	20.1	7.5	63	15.1	3.5	77	5.0	4.0	20	114	84
Home Grown Luce's Favorite	120	22.3	7.8	65	17.2	4.0	77	5.1	3.8	25	109	88
Long Island Luce's Favorite	130	22.4	7.2	63	17.8	3.8	79	4.6	3.4	26	97	94
Bloody Butcher	140	22.0	7.0	68	17.0	3.4	80	5.0	3.6	28	103	98
West Branch Sweepstakes	140	22.7	7.2	69	17.2	3.6	79	5.5	3.6	35	103	108
Leaming	150	23.7	7.1	70	18.9	4.0	79	4.8	3.1	35	89	100

The Origin of Cornell 11

Cornell 11 is a selection of Pride of the North, a medium season yellow dent for New York State conditions. It will mature in about 115 days under good growing conditions, and is a high-yielding variety for both grain and silage on good corn soil. The plant-breeding department considers it well adapted to central and western New York conditions.

The Home-grown Cornell 11 used in this test has been matured successfully in Chautauqua County under average growing conditions for the past five years. The farm on which this particular seed was raised is over 1,500 feet above sea level. This home-grown seed was somewhat earlier and somewhat smaller growing than the Cayuga County seed.

Webber's Dent is a selection from Funk's Ninety Day Dent, and matures only a few days earlier than Cornell 11.

Cornell 12 is the same selection as Webber's Early Dent except that it is about two weeks later in maturity.

In Order of Bushels Per Acre

These varieties above mentioned were well up in the list when it was rearranged in order of yield of shelled corn per acre. The highest yielding varieties are listed first:

Cayuga County Cornell 11.
Webber's Dent.
Cornell 12.
Home-grown Cornell 11.
Alvord's White Cap Dent.
Hall's Gold Nugget.
Home-grown Luce's Favorite.
Onondaga White Dent.
Cook's Cross.
Westbranch Sweepstakes.
Bloody Butcher.
Early Huron.
Long Island Luce's Favorite.
King Phillip.
Smut Nose.
Leaming.

The seed of the Bloody Butcher variety, which Mr. Cheney obtained from the local store, proved to be a long-season strain. This was unfortunate, for usually Bloody Butcher has stood up well in corn tests in western New York. This, however, does emphasize a very important point, that often the source of seed may be of more importance than the variety itself. This problem has been given little attention until within the last few years. It is now possible, however, to obtain seed from reliable sources in commercial quantities from the best seedsmen.

The remarkable similarity of different strains of the same variety in the cases of Cornell 11 and Luce's Favorite is also worthy of attention. In almost every case these two strains of home-grown seed were similar in yielding capacity, height of stalk, time to maturity and proportion of dry weight to green weight, to the same variety that was distributed by the college.

Recommendable Varieties

The conclusion that Mr. Cheney draws from all this work is that those varieties which have been recommended by the College of Agriculture and the Farm Bureaus are safe guides to go by. He would include among the kinds that he would recommend for various conditions:

Alvord's White Cap Dent, Cornell 11, Webber's Dent, Cornell 12, Hall's Gold Nugget, Luce's Favorite.

These are not listed in order of their importance, but it is felt that each has a place on farms where the growing season is about 120 days and the elevation is about 1,500 feet above sea level.

I remain a reader of your paper and like it very much.—JOHN CRANDALL, Saratoga County, N. Y.

The Valley of the Giants

(*Continued from page* 174)

deposited in bank; and Buck Ogilvy was already spending it like a drunken sailor. From now on, Bryce could only watch, wait, and pray.

On the next steamer a surveying party with complete camping-equipment arrived in Sequoia, purchased a wagon and two horses, piled their dunnage into the wagon, and disappeared up-country. Hard on their heels came Mr. Buck Ogilvy, and occupied the bridal suite in the Hotel Sequoia. In the sitting room of the suite Mr. Ogilvy installed a new desk, a filing cabinet, and a brisk young male secretary.

(*Continued next week*)

18 Ever-Blooming ROSE BUSHES

YOURS AS A GIFT For Only 2 Yearly Subscriptions for *American Agriculturist* at $1.00 each. Your own renewal may be sent as one of the two subscriptions required.

No reader can afford to miss this mammoth gift offer — the greatest collection of plants we have ever given.

What can add more to the charm and beauty of your home than bowers of exquisite fragrant roses? Roses breathe sentiment and happiness. No home is complete without your own remarkable collection of 5 pink, 4 white, 5 red and 4 yellow roses. One of them is a climber. These rose bushes are guaranteed to reach you in good condition in proper time for planting in your locality. You cannot beat this selection of 18 roses.

WILLIAM R. SMITH, (Shellum)—The soft blending of the salmon-pinks and the rose-pinks and the beautiful flesh tints in this Rose give it a singular resemblance to the entrancing flush on a maiden's cheek.

MAMAN COCHET, (Cochet)—This is the famous Pink Cochet. Light pink shaded with salmon-yellow, outer petals splashed with bright rose; extremely large and full.

PRESIDENT TAFT, (McCullough)—It is without question the most remarkable of all pink Roses. It has a shining, intense, deep pink color possessed by no other Rose.

BRIDESMAID, (Moore) — A grand pink Rose for all purposes; not only a good garden Rose, but forces well.

RADIANCE, (Cook)—A brilliant rosy-carmine, displaying beautiful rich and opaline-pink tints in the open flower.

FLORENCE PEMBERTON, (Alex. Dickson) — Creamy-white, suffused pink; large, full, perfect in form.

WHITE LA FRANCE or AUGUSTINE GUINOISSEAU—Beautiful light fawn color, almost white; rightly described as an almost white La France. Extra fine.

WHITE MAMAN COCHET, (Cook) — A sport from Maman Cochet with creamy-white flowers faintly tinged with blush.

SNOWFLAKE, or MARIE LAMBERT, (Lambert) — Medium size, pure-white; free; fine bedder.

RED RADIANCE, (Gude)—The Washington Red Radiance. The enormous globular flowers on heavy canes are a sight to be long remembered. The color is dazzling crimson-scarlet.

RED LETTER DAY, (Alex. Dickson)—An exceedingly beautiful Rose of infinite grace and charm. Its velvety, brillant, glowing scarlet-crimson buds and fully opened cactus-like flowers never fade.

MRS. BENJAMIN R. CANT, (Benj. Cant.)—Color deep rose, inner petals soft silvery-rose suffused with buff at the base.

MADAME LOMBARD, (Lacharme) — Bright deep rose, variable in color; large, fine form, good habit; free bloomer.

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Molasses Goodies

Recipes by Mabel Fern Mitchell

WHOLESOME, sweet molasses is one of the best ingredients to be found for making candies, cakes, cookies and breads. Then too we find there is not so much danger of overeating candy made of molasses.

With the price of sorghum hovering around a dollar a gallon and molasses up in price too, it behooves us to study ways of conserving it. When ever you are measuring sorghum or molasses, first grease your measuring cup or spoon, and you will find out that every drop of the syrup will come out. This is far better than the old method of leaving the sides well coated with good thick syrup.

The recipes given here are for cakes, cookies and hot breads, which can be made with molasses. Next time I will give recipes for molasses candies.

Ginger Cookies

Put in a teacup half a teaspoon ginger, a teaspoon soda, half a teaspoon cinnamon, three tablespoonfuls of melted shortening, three tablespoonfuls of boiling water, and fill the cup with molasses. Add flour and mix rather soft. Roll thin and bake in a quick oven.

Ginger Snaps

This recipe has been in use ever since 1860, and they have been taken to the Fairs several times, and always take a prize. 1 cup brown sugar; 2 cups molasses; 1 cup shortening; 1 tablespoon strong ginger; 2 teaspoons salt. Place all in a mixing bowl then take one tablespoon soda and put in cup. Fill cup with boiling water. When it has foamed, pour in dish on other ingredients. Stir until mixed and then add sufficient flour to roll, soft enough to handle easily, but roll thin.

Corn-meal Cookies

One-half cup shortening; ½ cup corn syrup; ½ cup molasses; 1 egg; 6 tablespoons sour milk; 2 cups corn meal; ½ teaspoon soda; 1 cup flour; 1 teaspoon cinnamon. Combine the melted fat, syrup, molasses, beaten egg and sour milk. Sift together the corn meal, flour and soda. Add the liquid ingredients to the dry. Drop by spoonfuls into a greased pan and bake fifteen minutes in a moderate oven.

Ginger Muffins

3 cups flour; ½ cup brown sugar; 1 cup molasses; ¼ cup shortening; 2 eggs; 1 teaspoon soda; 1 tablespoon ginger; ¾ cup sweet milk; 1 tablespoon cinnamon; 1 teaspoon salt. Cream sugar and shortening. Add molasses, then eggs well beaten. Next ginger and cinnamon and alternate milk and flour, the soda having been dissolved in the milk. Bake in well-greased muffin rings.

Bran Bread

3 cups whole wheat flour; 3 tablespoons molasses; 1 teaspoon soda; 1 cup bran; pinch of salt and 2 teaspoons baking powder. Buttermilk to make a soft dough. Stir all together until thoroughly blended, and bake in a moderately hot oven about forty-five minutes. Bake in tall cans so as to not have too much crust.

Boston Brown Bread

1 cup graham flour; 1 cup yellow corn meal; 1 cup wheat flour; 1 cup seeded raisins; 1 teaspoon salt; 1 pint sour milk; ½ cup molasses; 1 teaspoon soda. Mix thoroughly and place in molds or cans. Steam one hour in Steam Pressure Canner with pet-cock open. Then close pet-cock and run pressure to fifteen pounds and hold for ten minutes.

Mother's Ginger Bread

½ cup sugar; 2 eggs; 1 cup molasses; 1 cup thick sour cream; 1 teaspoon soda; 1 tablespoon ginger; 1 teaspoon salt. Flour to make a thin batter. Just before taking from the oven, sprinkle scraped maple sugar and a few chopped nuts over the top. Or cut in squares and serve with a good sauce, either marshmallow or chocolate. Better still, whip some sweet cream and put over it just before you are ready to serve it.

Gingerbread Pudding

Crumble 2 cups of stale gingerbread and add to it two cups of sifted flour; two tablespoons sugar; ½ cup molasses; ½ cup seeded raisins; ½ cup almonds; 1 egg well beaten and a small pint of milk. Beat well and turn into a buttered mold and steam two hours. Serve with marshmallow sauce.

Eggless Suet Pudding

Use 1 pound suet, chopped fine; ½ pound citron; 1 pound stale bread, chopped; 1 pound each of raisins and currants; 1 cup molasses; 1 and one-half pounds sugar; 1 pound English walnuts; 2 cups flour; 1 teacup milk; 1 heaping teaspoon baking powder; ½ spoon soda; 1 spoon each of salt, nutmeg and cinnamon; and ½ spoon cloves. Steam at least four hours in open steamer, and one hour in steam pressure with pet-cock open. and then half an hour with pet-cock closed, and with ten-pounds pressure.

A DRESS FOR WORK AND A NEGLIGEE FOR LEISURE

FIRST, a housedress for plaid gingham or any similar fabric, with white cuffs and collar. The dress has a lacing in front which permits it to slip on easily over the head.

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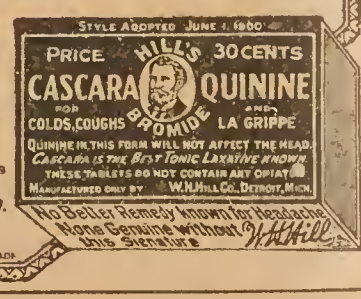

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Taking Stock of Health

Room For Improvement in Many Communities

THIS is stock-taking time. Merchants everywhere are going over their last year's records, writing off losses, seeing where they made mistakes and making plans for a profitable year to come.

There is a hint in this, not only for each of us individually, but for communities as well. One of the most valuable possessions which anyone can have is health, and we are gradually learning that health is a purchasable commodity.

It must be bought, however, not only with money, but with time, effort and thought as well. What each individual does, affects the health of the community as a whole; while the general health standard of the community cannot fail to help or injure the individual.

Tell us of Your Progress

Every year there are fewer "health heathen" in the United States—fewer men and women who disregard elementary health laws for themselves or oppose progressive measures to safeguard their children. But carelessness and indifference can be as dangerous as active opposition. The healthy community is the one where nobody "gets tired" of constant effort to reach a higher standard.

Fortunately not all of us have to contend with the ignorance and prejudice described by the author of the following letter. But when stock-taking times comes around, it is well for all of us to stop and think whether our community is actually advancing or merely marking time.

Many communities, however, have made splendid progress in health conditions, and we all ought to know about their work. Letters telling what has been accomplished and what is planned for this year will be very welcome. Pictures, if they are clear and definitely illustrate the subject, will also be acceptable. Sit down and talk things over—it will give you fresh enthusiasm in starting out to hang up a record for this year.

ARE WE HEALTH HEATHENS?

The community nurse examines the 54 children in our district some few months ago, and the parents are fuming and fussing yet, as to why the County Superintendent should send a nurse up here to do such a thing. I don't think there was a perfect child among them—nearly all of them had bad teeth, enlarged tonsils, adenoids, and some of them had weak eyes, and one had tuberculosis.

This little chap took a severe cold which developed into pneumonia, and died after four weeks illness. His old-fashioned grandmother was the family doctor and she doctored him with teas, blisters and plasters. They didn't need a doctor, she told her daughter, 'twas only a cold, and he'd get over it. When the child finally refused to eat, they sent for the physician.

Not one of the other 53 children have had their physical defects corrected or removed. When anyone falls ill, the neighbors are called in to give their experience and assistance. In maternity cases a nurse is unknown; usually some woman who is the mother of seven or eight, is called in. One woman here has had seven children and never a physician at hand at their birth. When the children are born they are fed when hungry, and one-half of them never know what a bath means. From their birth they are fed anything that grown persons eat.

And now, in looking over a recent copy of our county paper, I see that the community nurse has been forced to give up her position owing to the lack of funds to carry on the work. Throughout our entire county there is a general belief that a nurse isn't essential and that it's all a political scheme to obtain a few more dollars. People don't seem to take a common sense view of the matter and realize what it would mean to their children, and to their children's children.

In most of the families you find the idea prevalent that all children must, at some time have such diseases as whooping cough, measles, chicken pox and the mumps. I had the whooping cough when nine years old, but so far have successfully evaded the other diseases. I can't see why people will believe that a child must have those diseases. If that is so, why wouldn't it be safe to say that they must have scarlet fever, small-pox, typhoid fever and influenza? It seems to me that one idea is about as sane and sensible as the other.

I have known persons whose belief was so strong that they have actually taken their children into homes where such diseases were, just because they believed they had to have the measles or the mumps and the younger they had them, the better off they'd be. I know of one case where just such deliberate exposure of children to contagious disease resulted in the death of the mother and three children out of a family of eight. Another woman of my acquaintance did that and her baby, only eight weeks old, died. So, as long as I can avoid it, I'm going to keep myself and my children away from all such diseases.

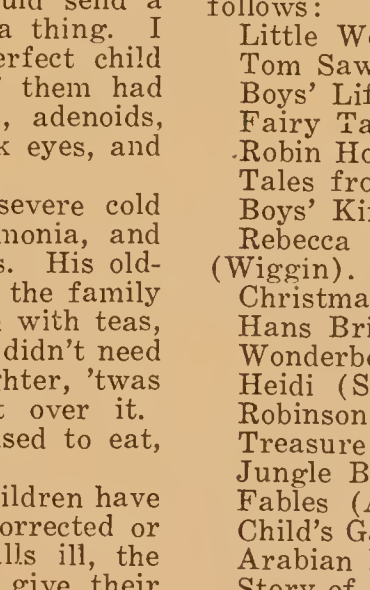
Sometimes, when I hear the missionaries preach about the superstitions of the heathens, I wonder after all, if they are really any more foolish than the old signs and sayings our grandmothers cling to as their mothers did before them?

HAVE YOUR CHILDREN READ THESE BOOKS?

If you were choosing 25 ideal books for children, which would you pick as the best in the English language? Two national organizations, The American Library Association and the National Educational Association, combined to make up a list of twenty-five, and on careful reading, it seems to be a very well-chosen selection. The list is as follows:

Little Women (Alcott).
Tom Sawyer (Mark Twain).
Boys' Life of Lincoln (Nicolay).
Fairy Tales (Anderson).
Robin Hood (Pyle).
Tales from Shakespeare (Lamb).
Boys' King Arthur (Malory).
Rebecca of Sunnybrook Farm (Wiggin).
Christmas Carol (Dickens).
Hans Brinker (Dodge).
Wonderbook (Hawthorne).
Heidi (Spyri).
Robinson Crusoe (Defoe).
Treasure Island (Stevenson).
Jungle Book (Kipling).
Fables (Aesop).
Child's Garden of Verse (Stevenson).
Arabian Nights.
Story of Mankind (Van Loon).
Mother Goose.
Rip Van Winkle (Irving).
Boys' Life of Roosevelt (Hagedorn).
Wild Animals I Have Known (Seton).
Home Book of Verse (Burton E. Stevenson).
Alice in Wonderland and Through the Looking Glass (Carroll).

Are there any favorites which our readers think have been omitted, or would they substitute any more recent books for some of the old favorites? We should be glad to hear how many school-rooms, libraries and home book-shelves are equipped with either all or a large part of this well-rounded list of standard children's books.



Another "A. A. Baby" is "Junior" Hart of Rush, New York, who at the age of two has taken up floriculture. Junior, according to his mother has always been fed carefully prepared milk, and is thriving on the diet she gives him.

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CHICAGO, FORT WORTH, KANSAS CITY, PORTLAND, ORE., ST. PAUL

Reviewing the Latest Eastern Markets

NEW YORK EXCLUDES SMALL LIVE ANIMALS

IT is reported that the New York City Health Department has issued a ruling prohibiting live pigs, lambs, goats, rabbits, hares and other small animals from being sold in New York City except for breeding, and when sold for food purposes they must on arrival be sent to a slaughter house and killed before being offered for sale. This ruling will practically prohibit the shipping of such live animals, as the expense of carting to and from the receivers' stores and having the stock slaughtered is too great. It will, therefore, be necessary for shippers to kill and dress the stock before shipment. Further information regarding this ruling and the proper method of dressing and shipping will be given in next week's issue.

The Lenten season commenced with Ash Wednesday and demand for dressed calves and other meat will probably be lighter from now on until Easter, which occurs April 1. A considerable surplus of calves and other country dressed meat is held in the country because of snow, and as soon as shipping conditions become normal there will probably be an oversupply, with very low prices. Shippers are advised not to dress meats for this market during the next month.

WEATHER STRENGTHENS POTATO MARKET

The extreme cold weather last week interfered with loading and unloading of all vegetables and fruits. Prices tended to be firmer at New York in anticipation of lighter receipts but supplies on hand could not be moved readily.

State potatoes moved in a small way from western New York for $1.15 cwt. in bulk and $1.80 per 150-lb. sack delivered New York City. Round whites, bulk per 180-lbs. No. 1 sold at $2.50 to $2.60. Growers were offered 40c per bu. and were inclined to stop hauling.

At Rochester and nearby, market was dull and movement slow. Round whites U. S. No. 1 sold there Feb. 15 at mostly $1.35 to $1.40 per 150-lb. sack, with a few at $1.45.

Maine shipments are running very light owing to cold and car shortage, and are going mostly to New England cities. Shipments so far this season from Maine are over 7,000 cars short of last year to same date.

Carlot shipments of old crop potatoes in entire country are 74,000 cars below last season. New crop shipments to date are 25,461 cars, compared with 19,005 to same date last year.

Danish cabbage has been in demand. Best quality sold as high as $40 per ton. Receipts light.

APPLES MEET GOOD MARKET

Barreled apples were fairly plentiful last week at New York but prices held steady especially for fancy McIntosh, and Northern Spy, which were much in demand. Trading stopped on account of weather at end of week.

Carlot shipments of barreled apples this season up to Feb. 10 in entire country were 54,324, as compared with 32,078 all last season. New York State shipped 22,785 cars this season compared with 17,806 total last season.

Wholesale prices at New York Feb. 16, were:

Apples-	Best	Fancy	Ordinary
Baldwin...	$4.50@4.75	$5	$4 @4.25
Greenings..	4.25@4.50	4.75	3.75@4
McIntosh...	12 @13	14 @15	8 @10
N. Spy...	6.50@7	7.50@8	5 @6

Pears from storage continue to be in light demand and the market dull. Liberal holdings are reported in the Rochester section. Kieffer, per barrel, sold, best, $3 to $3.50, with a few sales of extra fancy at $4.25 to $4.50.

BUTTER STILL FLUCTUATING

Wholesale butter prices are now fluctuating up and down, as so often happens in February. Remaining stocks of storage butter are very light and prices are now low enough to shut off Danish importations.

Cold weather in the West checked the increase in fresh production. If fresh butter moves promptly the market should not show extreme changes for the rest of February. Last year in 22 business days of February, the price of extras changed 11 times, and in 1921 there were 14 changes in 22 days.

All grades of creamery butter were ½ to 1c higher on February 15 than a week previous. Creamery extras, which sold at 50 to 50½c, were last year on the same date only 37 to 37½c lb.

The market for cheese is irregular, and fresh cheese prices both east and west are gradually weakening. In Wisconsin fresh makes declined a cent a pound in one week. State flats, fresh, average run, were quoted at 25½c lb. Holdings of cheese in public storage houses in four large cities, February 14, were 8,712,177 lbs., against 7,199,773 lbs. on February 14, 1922.

EGG MARKET ACTIVE

The tendency toward increasing supplies of fresh eggs was checked by the cold weather in the west and later in the east. The market at the close of last week was strong and active, with tendency toward higher prices providing weather continued cold. Storage and western eggs advanced and Pacific Coast whites to a less extent. Nearbys, except New Jerseys, were 1c. higher on Feb. 15 than a week previous.

Cold storage stocks have been working off rapidly. Only 18,712 cases of storage eggs were on hand at New York February 15, compared with 17,259 cases on the same date last year.

BROILERS, CAPONS, DUCKS WANTED

At this time of the year the demand is stronger for lightweight fowls, and both capons and boilers are selling very well. Most of the chickens arriving now are staggy, generally little better than old roosters, and the market for them is weak.

GRAIN PRICES DROP SLIGHTLY

After about three weeks of an almost uninterrupted advance, grain prices suddenly dropped on February 15. Future grains are sensitive at present to the European situation. Rye trading is light.

Cash grain prices February 15 follows: At New York—Wheat, No. 2 hard winter, $1.31½; corn No. 2 yellow, 91½c.; oats, No. 2 white, 57c.; ordinary white, clipped, 55 @ 57½c.; rye, $1; barley, 81 @ 82c.; buckwheat, $1.98 @ $2.25. At Chicago—Corn, No. 2 yellow, 73½ @ 75c.; oats, No. 2 white, 46 @ 47c.; barley, 64 @ 68c.

FEED BUYING ACTIVE

Trading in feed was active last week and prices advanced on cottonseed meal, oil meal, standard spring bran, hard winter bran, and middlings. Market firm and inclined to work higher. Quotations on carlots f. o. b. Buffalo in 100-lb. sacks, February 14, were: Gluten feed, $46.50 @ $47; cottonseed meal, 36 per cent, $48.50 @ $49; oil meal, 33 to 34 per cent, local billed, $51 @ $51.50; standard spring bran, $33.75 @ $34; hard winter bran, $34.25 @ $34.50; standard spring middlings, $33.75 @ $34; choice flour middlings, $36.25 @ $36.75.

Following were prices in feed grains per bushel: No. 2 yellow corn, 86c.; No. 2 white oats, 52½c.; barley, feed, 74 @ 76c.; rye, No. 2, 99c.

HAY PRICES ADVANCE

Owing to limited number of permits issued by the railroads for shipping hay to New York, the market has cleaned up old accumulations and taken on a firmer tone. Lower grades are not much in demand. Buying has been active on better grades. Some premiums paid above quotations.

DULL MARKET FOR BEANS

Trading in beans is very light, but pea beans are a little firmer. No sales reported over $8.50 per cwt., however, Marrow beans received little attention, the few sales being at $10 to $11. Medium, 1922, quoted at $8.25 to $8.50.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on February 16:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	45@47	.....	.....
Other hennery whites, extras	43@44	43@44	.....
Extra firsts	42@42½	.....	39
Firsts	41	.....	38
Gathered, whites, first to extra firsts	41@42½	40@41	.....
Lower grades	39@40	.....	.....
Hennery browns, extras	43@45	.....	.....
Gathered browns and mixed colors, extras	38@42	.....	.....
Pullets No. 1	38@39	40@41	.....
Butter (cents per pound)			
Creamery (salted) high score	51@51½	52@53	.....
Extra (92 score)	50@50½	50@51	50½
State dairy (salted), finest	49@50	48@49	.....
Good to prime	46@48	42@47	.....
Hay and Straw, Large Bales (per ton)			
Timothy No. 2	$23@24	.....	$23
Timothy No. 3	21@22	.....	20@21
Timothy Sample	17@18	.....	.....
Fancy light clover mixed	24	.....	20
Alfalfa, second cutting	24@25	.....	.....
Oat straw No. 1	16@17	.....	13@13.50
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	28	30@32	28@30
Fowls, leghorns and poor	26	26@28	27@28
Chickens, leghorns	26	22@24	26@28
Roosters	15@16	17@18	17@18
Live Stock (cents per pound)			
Calves, good to medium	14 @15	11 @15½	.....
Bulls, common to good	3½@ 4	4 @ 6¼	.....
Lambs, common to good	9@11½	15 @15¼	.....
Sheep, common to good ewes	3½@ 5½	7½ @ 8	.....
Hogs, Yorkers	9@ 9¼	8¾ @ 9	.....

INSULATING AN ICE HOUSE

I have built a frame ice house 20 x 30 x 20 feet deep, 10 feet in the ground. I have used plain boards for the outside. Will it be good to use same kind of boards for the inside and the sawdust in between the boards? If this is any good, how thick will the sawdust be to keep the ice in good condition and what kind of ventilators, and how many tons of ice will fill the place.—(S. R. Pennsylvania.

In order to make the walls of the ice house have good insulating action, it is necessary to put sheathing both inside and outside the studs, and fill in the spaces between with some insulating material, such as ground cork or coarse sawdust. Ground cork is considerably better, but it is sometimes difficult to obtain. The sawdust will do very nicely and is quite effective. The thickness of the sawdust ought to be six or eight inches, and this can be accomplished by using studs of this width. When the ice is put in a space twelve inches wide should be left between it and the walls and filled later with packed sawdust. A layer of sawdust a foot thick should be piled over the top of the ice also. An icehouse of the size you mention will hold approximately 250 tons of ice, depending on how it is packed and how completely it is filled.

Says Sam: The fellow who can do the most for you is the fellow you see when you shave yourself.

BABY CHICKS

Hatching every day in the week and every hour in the day. We are the world's largest producers.

THREE MILLION FOR 1923

Twelve popular breeds of best thorobred stock obtainable, moderately priced; also QUALITY chicks from heavy laying stock at small additional cost.

We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

Smith's Standard Reg.U.S.Pat.Off.

THE SMITH STANDARD COMPANY

Boston, Mass., Dept. 67.....184 Friend Street
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(Member International Baby Chick Association)

750,000 CHICKS

$10.50 PER 100 AND UP. From Hogan tested, well-kept, heavy laying flocks. Wh., Br., and Buff Leghorns, 50, $7; 100, $13; 500, $62.50. Bar. Rocks, Anconas, 50, $7.50; 100, $14; 500, $67.50. Reds, Wh. Rocks, Minorcas, 50, $8; 100, $15; 500, $72.50. Buff Orpingtons, Wh. Wyandottes, 50, $9; 100, $17; 500, $82.50. Mixed, 100, $11; 500, $52.50. Postpaid and full live delivery guaranteed. Order right from this ad. ALSO EGGS FOR HATCHING. Free Catalog. Ref. 4 Banks. Only 18 hours to New York City.

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WANTED TO SELL

all throughbred hatchings—chickens of the principal breeds—regularly through the year to a single person or firm. Any reasonable proposition considered.

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P. O. Box 69 Rockville, Md.

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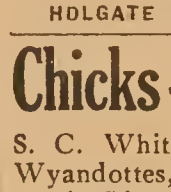

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GUARANTEED MICHIGAN BRED AND HATCHED. WHITE & BROWN LEGHORNS, ANCONAS, 50, $7; 100, $13; 500, $60. BARRED ROCKS, R. & S. C. REDS, 50, $8.50; 100, $16; 500, $75. 1,000 Orders at 500 rate. RHODE ISLAND WHITES, 100, $18; 200, $35. Postpaid, full live delivery guaranteed. Strong, vigorous chicks, from select, heavy laying flocks. Order NOW right from this ad. I want your business. Catalog Free. Reference, Holland City State Bank. KNOLL'S HATCHERY, Box F, Holland, Michigan. Only 20 hours to New York City.

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S. C. W. Leghorns, S. C. Black Leghorns, Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

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Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off. Ready February 26th. Free catalog. Member I. B. C. A.

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RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

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The chicks you raise will be the ben that lays. Strong, healthy chix from free-range, bred to lay hens.

BREED	Per 100	500	1,000
S. C. White, Brown, Buff Leg.	$15.00	$72.00	$140.00
Barred Rocks, R. I. Reds	18.00	85.00	160.00

Parcel post prepaid. 100% live delivery. 20% books order. CRESTWOOD FARM, Box A, Schaefferstown, Pa.

CHIX Guaranteed to live. 16 varieties. Postage paid. Also special low prices on Brooders Supplies, Seeds, etc. Catalogue Free

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S. C. White Leghorns exclusively. Extra fine April Chicks, $20 per hundred; May, $18; June, $15. Free delivery and satisfaction guaranteed.

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CHICKS From good selected heavy laying flocks of Rocks, Reds, Minorcas and Leg. Right prices, postpaid, full live delivery guaranteed. Bank Ref. SUNNYSIDE HATCHERY LIVERPOOL, PA.

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ANCONAS Cockerels, $3.00 each; two for $5.00. Pullets, $3.00 each; nice ones. Order soon or write. G. S. HALL, Farmdale, Ohio

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We **Guarantee** to refund to the customer at the rate of one cent per chick per day on all orders that do not leave our hatcheries within 72 hours from the time specified. Write for our circular and **Low Prices** and place your orders this season where you will be sure of **Quality** and **Service.**

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The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, growthy Chicks which will mean PROFIT to my customers. PRICES: WHITE, BROWN & BUFF LEGHORNS, 50, $7.; 100, $13.; 500, $62.50. BARRED ROCKS, R. & S. C. REDS & ANCONAS, 50, $8.; 100, $15.; 500, $72.50. WHITE & BUFF ROCKS, WHITE WYANDOTTES, & B. MINORCAS, 50, $8.50; 100, $16.; 500, $77.50. WHITE & BUFF ORPINGTONS SIL. L. WYANDOTTES, 50, $9.; 100, $18.; 500, $87.50. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them.

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CHICKS From select, pure-bred, heavy laying flocks composed of mature vigorous females. Well housed and handled to insure HEALTHY, HARDY CHICKS. WHITE, BROWN AND BUFF LEGHORNS—50, $7; 100, $13; 500, $60. BARRED WHITE AND BUFF ROCKS, ROSE AND SINGLE COMB REDS, ANCONAS AND BLACK MINORCAS—50, $8.50; 100, $16; 500, $75. WHITE WYANDOTTES—50, $9.50; 100, $18; 500, $85. MIXED CHICKS FOR BROILERS, $10 PER 100 STRAIGHT. Postpaid. Full live delivery guaranteed. Our Reference is Citizens' Savings Bank and you can order with perfect safety right from this ad NOW. Catalog Free. MANKEL'S IDEAL HATCHERY, Box R. UPPER SANDUSKY, OHIO. 18 hours to New York City.

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From carefully selected to lay flocks in BARRED, WHITE and BUFF ROCKS, WHITE and GOLDEN WYANDOTTES, BLACK MINORCAS, BUFF ORPINGTONS, S. C. and R. C. REDS, ANCONAS, WHITE, BROWN, BLACK and BUFF LEGHORNS, and Assorted for Broilers. Produced by men of many years' experience who know how to hatch good, strong, healthy Chicks. Fair prices. Postpaid, full live delivery guaranteed. Get our catalog and full particulars. Bank Reference. NEW WASHINGTON HATCHERY, Box A, New Washington, Ohio.

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From Select, Pure-Bred Flocks on Free Range.

White and Brown Leghorns and Anconas, 50, $7.50; 100, $14; 500, $65. Barred Rocks, Reds, Minorcas, 50, $8.50; 100, $16; 500, $75. Extra Select from Pure-Bred Flocks, $2 per 100 higher. 75,000 chicks weekly. Postpaid. 100% live delivery guaranteed. Bank Reference. Free Catalog. Only 20 hours to New York City.

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From EXCELLENT PAYING, HEAVY LAYING flocks on unlimited range. WELL-HATCHED, STURDY, HEALTHY CHICKS in following varieties: Tom Barron English White Leghorns, 50, $7; 100, $13; 500, $62.50. Park's Barred Rocks and Rhode Island Reds, 50, $8; 100, $15; 500, $72.50. From EXTRA SELECT flocks headed by Mich. Ag. College cockerels (Dams records 280 to 270). Wh. Leghorns, 50, $8; 100, $15; 500, $72.50. Rocks and Reds, 50, $9; 100, $17; 500, $82.50. DELIVERED RIGHT TO YOUR DOOR BY INSURED PARCEL POST. 100% live delivery guaranteed. Order NOW and from this ad, as many were disappointed last year. Profitable catalogue FREE. Bank Reference. LAKEVIEW POULTRY FARM, Route 8, Box 2, HOLLAND, MICHIGAN. Only 20 hours to New York City.

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Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.

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Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
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All chicks sent by special delivery parcel post prepaid. 100% safe and live delivery guaranteed. 10% books order any week after Feb. 1.

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Price List	Prepaid to you	Purebred Stock	
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Anconas	14.00	7.50	4.00
Minorcas	15.00	8.00	4.25
Rhode Island Reds	15.00	8.00	4.25
Barred Rocks	15.00	8.00	4.25
Buff and White Rocks	16.00	8.50	4.50
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For breeding, we select only the kind of heavy egg-producers we want our chicks to grow into. Other factors enter into our choice of the parent birds, of course, but the prime test is ABILITY TO LAY.

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CHICKS $10 per 100 and Up

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Hatched by the best system of Incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 18c. each; White Wyandottes, 22c. each; White, Brown, Buff Leghorns, 15c. each; broilers, 10c. each. Pekin Ducklings, 22c. each. Safe delivery guaranteed by prepaid parcel post

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Chicks, from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

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Member of N. Y. S. C. P. C. A.

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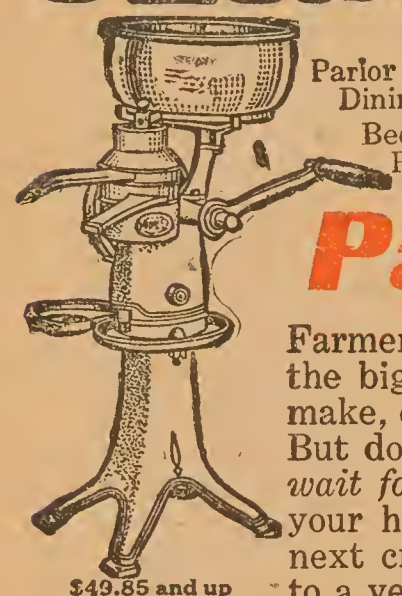

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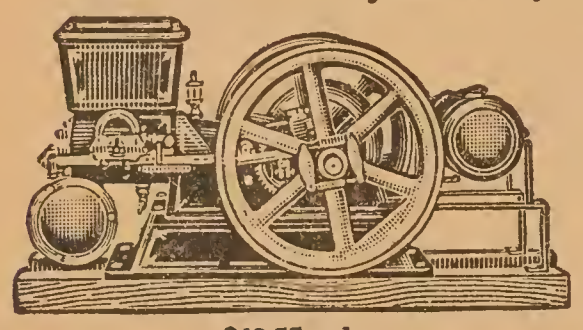

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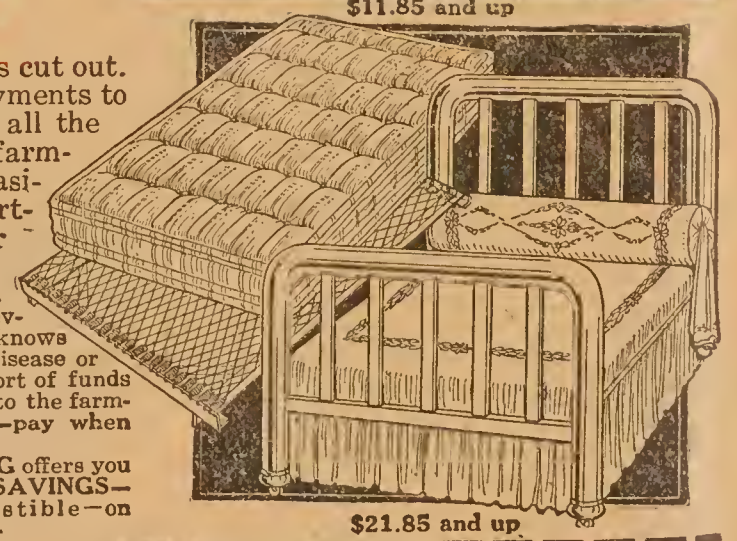

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VOL. 111 Founded 1842 No. 9

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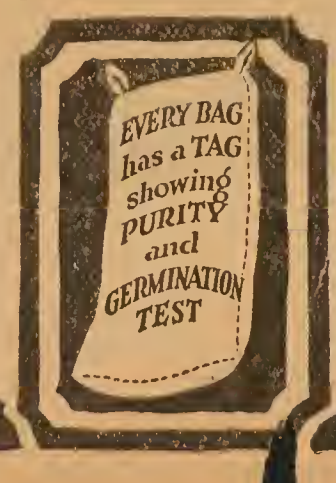

American Agriculturist

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Volume 111 **For the Week Ending March 3, 1923** **Number 9**

Making Gardens Yield Their Limit

Definite Suggestions For Bringing Down the Farmers Cost of Living

By R. L. WATTS

CHICKENS are kept on your farm, of course. Are you right up-to-date in feeding them? Our little flock gives us wholesome work and also eggs for the family. And it has occurred to me that those busy-bee hens are not unlike the garden vegetables in their feeding habits. In the first place, the hens must have some litter—clean, sanitary and of the right texture, in order to induce vigouous scratching and proper exercise. So must the roots of plants have a satisfactory medium—the soil, which must be sanitary and of the right texture and moisture content.

Again, these persnickity hens insist on a ration almost equal in variety to a banquet served in New York's swellest restaurant. Give them corn and any one or two other articles of food and they will rebel and not lay an egg until springtime comes and they get good and ready. So it is with vegetables. Give them nitrogen only and they will all go to leaves, or feed them with the mineral elements only and the yields will be disappointingly small. The hens demand a dry mash with a mixture of egg producing materials and a grain mixture of corn, wheat, oats, buckwheat or other grains in variety. And the farm garden must not be lacking in any element of plant food, if all the vegetables are to thrive.

Inasmuch as a great many different kinds of vegetables are grown in the farm garden, fertility conditions suitable to all of them must be maintained. If we were to grow only one crop, such as, tomatoes or celery, the problem of supplying the needs would be simplified. Tomatoes, for example, do not require as high fertility as celery, and each garden crop has its own special requirements, to some extent at least. Because of this difficult situation it is necessary to supply plant food and organic matter in sufficient quantity to meet the needs of all the crops to be grown, in order that no one vegetable will suffer, and at the same time, not to add anything in such forms and amounts as will be disastrous to any crop.

Thousands of farmers, anxious to maintain the highest ferility in the farm garden, apply enormous amounts of stable manure to the garden annually and when any of the crops fail, they wonder what the trouble is. And a fairly large percentage of gardens treated in this lavish manner do fail sooner or later. It is like feeding the hens all corn. Well preserved manure is rich in nitrogen, but does not contain enough phosphorus to meet the full requirements of most, if not all of the vegetables, and it may be short in potash, under certain conditions. A few years ago I visited a market gardner who was grieving over a small crop of cabbage on a heavily manured plot. The outside leaves were very large, but the cabbage heads were very small. No mineral fertilizer had been applied.

But let us remember that a large amount of humus in any garden soil is absolutely essential. Without a liberal amount of organic matter the soil becomes hard, compact, lifeless and unproductive. It is all right to use plenty of manure every year, but it is all wrong to rely wholly upon manure.

The long list of products from a good garden keep down the cost of living and add much to the health and happiness of the farm home

How much manure to the acre? That depends. Some heavy clay soils need more than the naturally friable, sandy loams. Peter Henderson, the veteran, pioneer American gardener, often used 75 tons to the acre. Very few gardeners of to-day can find or afford to apply more than half this amount, and if they can use twenty tons to the acre, they are indeed fortunate, except in the most intensive operations. If the farm garden receives an annual application of 25 tons of manure to the acre, the supply of organic matter should be adequately maintained.

Fresh stable manures are injurious to some garden crops, especially to the root crops, such as beets and carrots. They tend to produce foliage instead of the desired edible parts of the plants. For this reason, market gardeners generally compost the manure and there is no reason why every farmer should not treat the manure in this manner for the home garden. The usual plan is to tramp the manure in large flat piles with rectangular sides. It is an advantage to water with a hose occasionally to hasten decay and to prevent firefanging.

If composted in a moist condition for at least six months, all the weed seeds will be destroyed and this in itself is a strong argument for composting. Though the coarser partly decayed manure should be applied before the garden is plowed, the best results are obtained by applying well decayed manure after the garden has been plowed and then use a disk harrow to thoroughly mix it with the soil. In small gardens which are spaded, the manure should be applied before the ground is spaded.

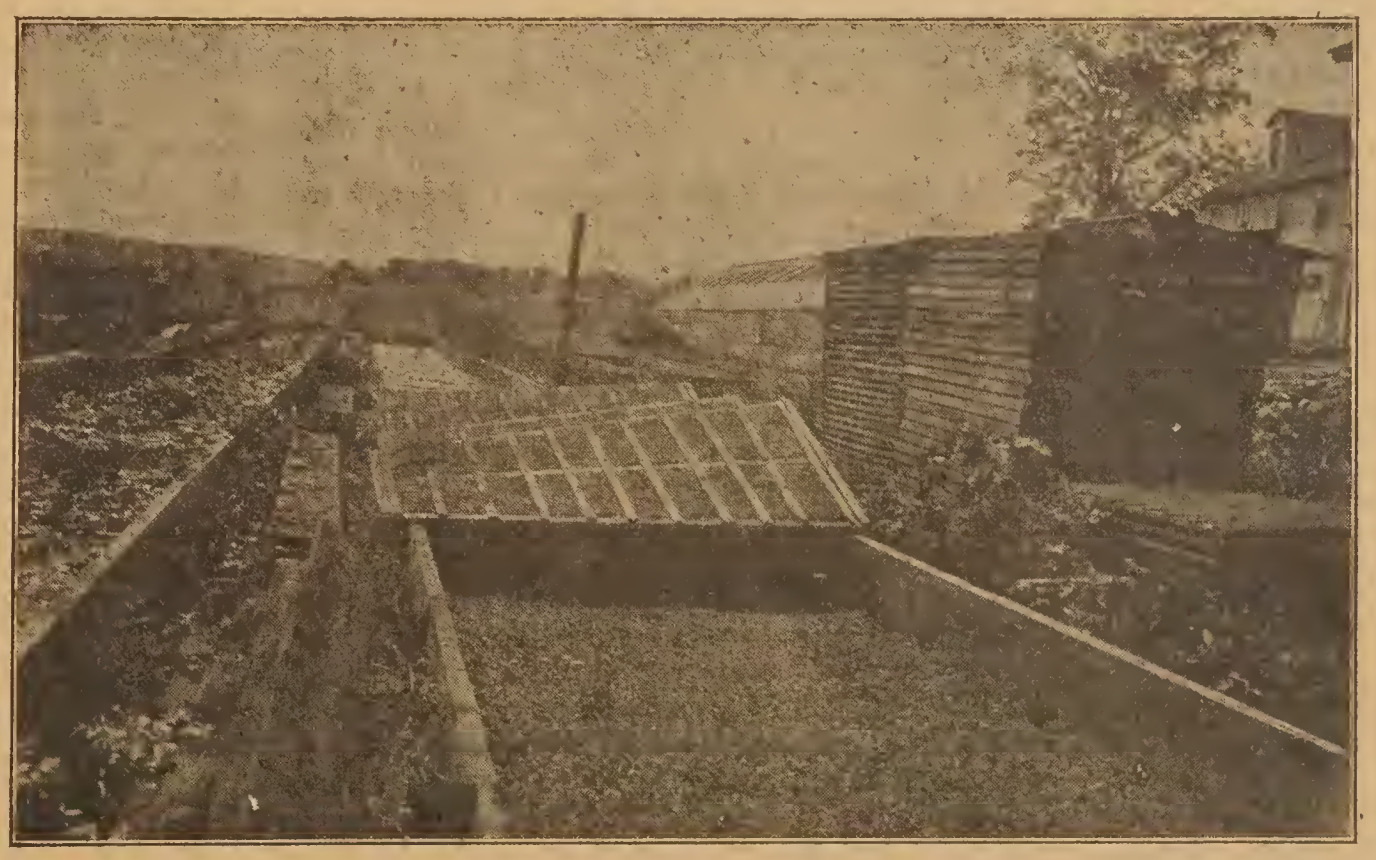
Poultry droppings, because of their fine texture and high fertilizing value, are especially desirable for use in the garden. They should be spread lightly, after the ground has been spaded or plowed, and then harrowed or raked into the soil. Their value will be enhanced if acid phosphate is sprinkled on the droppings as they are collected from day to day.

Gardeners are appreciating more than ever before the necessity of keeping the vegetable plats well limed. Fifty bushels of burnt lime to the acre, applied every four or five years, will maintain an alkaline condition in the soil and make it easier to cultivate. The lime should not be applied with the manure, if this can be avoided.

I doubt whether any farm gardener can afford to do without commercial fertilizer of any kind. Practical experience and numerous investigations show that applications of acid phosphate nearly always give increased yield and larger profits.

Most soils are lacking in this plant food and, as previously stated, stable manures do not contain it in adequate amounts. It is probable that most farm

(*Continued on page* 187)



A hot bed can be easily constructed at little expense and it will greatly extend the season and results from the home garden

Editorial Page of the American Agriculturist

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Founded 1842

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VOL. 111 March 3, 1923 NO. 9

The Home Garden

PERHAPS you will note as you look through this issue of *your paper* that we have made a little attempt to give you something special in the way of a Spring and Garden Number.

One of the things we try not to do is to "preach," but we do wish we could drive home the thought some way that farmers and their families would get more out of life and be much better off if they would grow and use more of their own products. One way to do this is to grow a larger and better home garden. A variety of vegetables, and it is surprising how long the list of different kinds is, add much to the attractiveness of the table and to the general health of the family.

But on most farms the home garden is considered of little importance. Where there is a good garden the women of the family are usually responsible and there is much growling and grumbling from the men folks when they are asked for a little needed assistance. Men usually feel that they have little time to bother with a garden, but we claim it is the most profitable time spent in the farm work.

Artificial Rain Making

THE other day a man at Dayton, Ohio, went up in an aeroplane above a cloud and by dropping some electrically charged sand into the cloud, he precipitated the moisture and caused it to rain. After many generations of experimenting to control weather conditions there is now considerable hope that the amount of rain-fall can to a certain extent be controlled.

All of us are familiar with the fact that day after day during a drought, clouds loaded with moisture constantly pass overhead to unload their water into the ocean or into some section where it is not needed. If it were possible at a reasonable expense to make these clouds discharge where rain is most needed, the possibilities to agriculture therefrom can hardly be estimated. The amount of rain-fall determines crop production more than any other factor or more than all other factors put together. If, therefore, men can determine the amount of rainfall, bumper crops can be assured every year and less farmers would be needed to feed larger city populations.

The Rural School Bill

A BILL has been introduced in both the New York State Assembly and Senate, which includes the fundamental suggestions made by the Committee of twenty-one to improve the rural schools. This bill should become a law.

Every rural school patron knows what the Committee of twenty-one is and why it was organized. The committee represents both farmers and educators, with the farm representatives in the majority, and it has been working for three years studying the rural schools and bringing the results of its findings to the attention of farm people. Well advertised mass meetings have been held in every section of the State where the people were asked what they thought should be done to improve the schools. Lengthy questionnaires were sent out to the different local farm organizations to get in detail their suggestions. The subject has been discussed in practically every one of the nearly one thousand subordinate Granges in the State, and many of these Granges have had the subject up several times. Within the last few months about four meetings have been held in practically every rural county in the State where the recommendations of the committee were explained to the people and their suggestions and reactions secured in return. In addition to this, the subject has had lengthy discussion in the farm papers and in the daily and weekly press. In spite of what those who are opposed to any changes in the schools may say, the proposals in this bill have had more preliminary discussion by those most concerned than any other bill that has ever been introduced in the Legislature. Complete information has been the one fundamental principle that the Committee of twenty-one has worked on all of the time.

Of course no matter how many meetings were held or how much publicity was given, there would always be a minority, usually those who will not take the time to go to a meeting or to study a question carefully, who will claim that they have had no opportunity to understand. All that can be hoped for on any great question is an approval of a majority.

Many claim that this bill ought to go over for another year. If it does its enemies will defeat it. Almost without exception farm people who have been interested enough to study the principles involved, have approved them. But there is a lot of prejudice surrounding the school question and while the majority favor giving the boys and girls in the country a better chance, the minority have more time and opportunty to work against the bill than those who really favor it have time to work for it.

Something for school patrons to think about is the fact that a big change of some kind is coming very shortly in the administration of the country schools. The question is, do you want this change to be along the lines that will give you more control of your schools, or do you want some system put over that takes away local control? There are many in the State who favor a county unit of administration and compulsory consolidation, and among these are those who are trying to defeat the principles advocated by the Committee of twenty-one.

The committee favors the community unit of taxation and administration. It favors keeping the district boundaries where they are now, such boundaries to be changed only upon vote of the rural people themselves. This means consolidation only where the people want it. The suggestions of the committee call for better prepared country teachers and more State aid for a country schools. These recommendations, in a nut-shell, are the fundamentals. If these principles are put into effect, the details will adjust themselves.

This is the most important educational measure of a generation, and we know that those most interested in the welfare of country boys and girls will not let prejudice, misunderstanding or propaganda interfere with their good judgment in the matter.

Farmers' Weeks Help

NEW YORK State College of Agriculture has just closed another Farmers' Week. Bad roads and hard times affected the attendance as they have most other meetings this year. Yet all who went to Ithaca to meet their fellow farmers from all parts of the State and to attend the lectures, conferences and entertainments, returned to their homes with new knowledge and inspiration with which to meet the problems of the coming season.

It has not been so many years since the average farmer looked with contempt and ridicule on those who thought farming important enough to study as a great trade or profession. The "book farmers" were curious freaks to be tolerated perhaps, but not to be taken seriously. This attitude was perhaps the outgrowth of a feeling that anyone who failed at anything else could still make a living from the soil. Times change. Whether or not it was once true that "any old fool could farm it," that day is forever past and Agriculture has become a new business requiring great ability and trained skill, and with this change there has come a different attitude on the part of farmers themselves toward scientific agriculture and the farm schools and colleges. One only has to visit a Farmers' Week at any of the colleges and note how eager the farmers themselves are to learn something more that will enable them to become better husbandmen, to see how completely they have come to recognize the necessity of trained knowledge in the business.

But Farmers' Weeks provide something more than the technical discussion of farm problems. They recognize that farmers like other folks are interested not only in making a living, but in learning how to live. So their programs are well provided with entertaining features. We were particularly impressed in noting how farm folks seem starved for entertainment. They have altogether too few good times and those who have to do with programs for meetings and with writing which farmers read, will do well to recognize that country people are looking for something to give them a little inspiration and a little wholesome fun in addition to the more technical discussions about their business.

Quotations Worth While

Nature has written a letter of credit upon some men's faces which is honored almost wherever presented.—THACKERAY.

* * *

Peace does not dwell in outward things, but within the soul. We may preserve it in the midst of the bitterest pain, if our will remain firm and submissive. Peace in this life springs from acquiescence even in disagreeable things, not in an exemption from suffering.

What Is Wrong With The Country Church?

Prize Winning Letters Answer This Vital Question

THE church is indispensable to the development of an adequate rural civilization. It must, however, adapt itself to changing conditions.

The greatest need, perhaps, is that every country-side home should have contact with a church. Generally this will be through the pastor's personal visitation.

Then, denominations should have definite rural policies. Superfluous churches should be abolished; many could be federated; but all should cooperate heartily together. The function of the country church should be clearly defined, and also its place among other agencies in the rural community. It should have a clear cut program of activities suitable to its great mission.

To-day there is a world significance to every church. This would be more deeply established in the minds of the rural community, and react to the benefit of the church, if the church paper were generally read.

A working alliance should be formed with specialized agencies of the church, like the Y. M. C. A. and the Young Peoples' societies, as well as with the so-called secular institutions, on behalf of a broad and progressive community-building program in rural regions. Home Mission boards should plan to provide adequate financial support for worthy rural projects.—DAVID L. JONES, West Exeter, N. Y. (*First prize*).

The Church Has a Vital Task

A gentleman said to me some time ago, "The day for the country church is done.." You would almost think he was right in going around the country and finding so many churches closed and falling to pieces. Someone else has said: "The country church will not die, the danger is that it will become a chronic invalid and fail in its great mission of helping country people win their spiritual battles." The task of the country church is the same as it ever was, which is to save men's spirit and make them one with God. It has a vital task to perform. No other organization can perform it. As a representative of a country church I am convinced we have not grown with the times. Therefore we are not able to meet the new spirit of the age. Our program is inadequate to the changed conditions of rural life.

The problem is how to grow and formulate a suitable working program. Shall we grow along the lines of the Scotchman's prayer "God grant I may be right for ye know I never change?" That does not spell growth, but stagnation. We must grow strong to meet the needs of our day and generation. The traditions of the past must take hold of us, but must not overwhelm us.

Now for the program:

1. The country church must preach and teach a sound gospel of salvation.

2. Our program must be progressive and aggresive. Big enough and large enough to comprehend all the essential interests of the community.

3. It must not be afraid of the farmer. It must strike hard and lead him out of his individual isolation to a true sense of cooperation. From narrowness of mind and heart and false independence to a better understanding of his fellowmen.

4. It must convince him to put the church first, not to substitute either Grange, Lodge or any other organization in its place.—JOHN G. MYERS, Ogdensburg, N. Y.

Awakening Must Come From Within

I have set forth a few points which I think have greatly influenced the rural church; First: Our Public Schools.—Most of the settlers of the East came to America for religious liberty. Freedom to worship God was their noblest heritage. By the side of their rude churches stood the school house. The teacher, generally the chorister, a Godly man. Text books were few, but the Catechism, the Testament, the Psalter with a little ciphering and penmanship were studied. The ten commandments with their application to daily life were indelibly impressed upon their minds. Their lives were examples of what they were taught. How everything is changed!

Second: The Press.—Newspapers and books have multiplied rapidly. Daily papers and magazines cater to the reading public. The Bible, the Hymnal, the Sunday School lesson is laid aside for cheap fiction. The mind becomes drunk and no longer craves for the good, the pure and holy.

Third: The Church Itself.—Conditions are vastly different in every way. Great progress has been made in transportation, manufacture, farming and business. Are the methods of the church not far behind that of the business world? An awakening must also come from within. The church not only ministers to the spiritual, but to the temporal as well. Six days of the week most rural churches are cold and locked. On Sunday, open for an hour or two. No library; no amusements; no social or religious societies.

Arouse the spirit of brotherly love, create a community center at the church. Let it be a place for the living and not only for the dead. And, above all, presided over by a minister that can preach and teach right living, praying and consecration. GEO. J. ROSS, New Tripoli, Pa.

Times Change But Not the Church

The patient who enters a hospital to-day, does not expect or receive the treatment that was given for the same disease fifty years ago, but the few farm families who still attend church hear very much the same kind of preaching that was heard by their parents and grandparents.

The main difference is that there is a lack of the flaming zeal that characterized the old-time preacher, who believed so sincerely in everlasting punishment and the "wrath to come" that he literally put the fear of the Lord in the hearts of his hearers. Wonderful as some of those preachers were, those of us who remember the long sermons, often terrifying to children are glad that times and thought have changed.

The world has outgrown the old orthodox theology, but it has not and never will outgrow its need of Jesus Christ and His simple doctrine of love and right living. Whether acknowledged or not, there is a need in every human heart for Christian teaching. When the time comes that the clergyman will throw away his outworn creed and dogma and simply and honestly hold up before his people the Son of Man—he will no longer talk to empty seats.—CARRIE L. KNAPP, Oneonta, N. Y.

Why the Church Declined

The decline of our rural churches can be attributed to no single cause. Personalities differ and each type has its own reasons, or at any rate, excuses, for non-support of the church. In tabulating a list of the factors which have led to the decline of the church, I divide them into two groups (1) the causes within the church and (2) conditions outside the church leading to the same result.

Of the causes within the church, I would name the following:

1. Denominationalism. Many persons are disgusted by the petty rivalries of denominations, while the division of the communities leads to inadequate salaries for the minister.

2. Inadequate salaries result in lack of able ministers. The best men are taken by high-salaried city churches.

3. The tendency to change ministers frequently leads to inefficiency.

4. Too much stress is generally placed on abstract theology rather than on the real practical essential of

(*Continued on page* 193)

The Best Church Letters

JUDGING the best country church letters was certainly a job. There were over 250 of them and they were surprisingly good. Probably if you were to read them all you would disagree with us as to which were the prize winners. But we have done the best we could and are publishing the prize winning letters in their order on this page. There were a number which covered more points and were really better letters than the ones to whom we gave the prizes, but they did not stick to the rules and were too long.

We are publishing some of those that did not win prizes also and hope to print some more in coming issues. All of those published will be paid for.

One of the surprising things about this discussion is the tremendous interest in the vital problem of religion. People seem to be groping in the dark for some spiritual help and guidance, and unfortunately the churches seem to be failing in the spiritual leadership which is so badly needed.—The Editors.

This is the first church of Plymouth, (it is really the fifth). The famous burial ground of the Pilgrims is in the rear of the church

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Yes, I guarantee that Lyman's Grimm Alfalfa is 99% pure and back up this guarantee by a standing offer to take back and refund on any of my seed found to contain dodder, quack grass, Canadian thistles or sow thistles.

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As I View Gardening

It Is Apparently a Question of "Who Shall Do It?"

By H. E. COOK

MARK TWAIN once said that a great deal had been said about the weather, but nothing had ever been done about it, and so a great deal has been said about the farmer's garden, but during my memory at least nothing startling has been done to make it what it ought to be. As I see the case, it is not a technical one, but rather a psychological, temperamental and economic one combined. The person is rare who does not like fresh green vegetables and knows their health value. To the housewife who must prepare three meals a day, vegetables not only have a health value, but their possession becomes an actual tonic to her nerves. I often wonder how women stand up under the strain of originating three meals each day, 1,095 during the year and say 40 to 50 thousand during a lifetime, besides the extras, and still keep a normal level mind. Really the marriage license ought to bind a man to at least work a garden, on the 50-50 plan if nothing more. But what should be and what "does he" are often as far apart as the poles. When we find a situation that is so deep seated that it has become chronic, there isn't much use of expecting to put things right by shaking a wand, we must find out what the causes are that have produced the case.

H. E. COOK

It is the dairy farm garden that interests me and does a majority of our readers in New York. If a trucker's family does not have plenty of vegetables, looks to me like stinginess or cussedness. But hold on, won't I have to apologize, for what's the difference between a trucker scrimping on vegetables and a dairyman on milk? Garden making is not one of the important jobs on most farms like milking, field seeding, haying and harvesting. It is a piece of work that is done either during spare time or by some member of the family not employed in the regular service. Probably I am not far astray to say that the wife, with *some* assistance from the children, is the chief garden maker. Please print the word some in Italics, for children do not like garden making.

If the wife is a natural executive this is probably the best general plan for a good garden. In the winter she gets the seeds, starts the tomato and pepper plants, sees to it that stable manure has been applied preferably in the late fall from composted piles left from top-dressing meadows, has the plowing done both spring and fall if possible, and also provides for a dressing of chemical manure after spring plowing and before harrowing, or rather leveling, for on land in garden tilth there isn't any harrowing to do.

Put the Men Folks to Work

Then she can watch out for days when her husband or some of the men folks can help her with the first or early planting, in getting the asparagus bed cleaned off, the pie plant patch spaded and cleaned. Two varieties of peas should be planted about that time, one early like the American Wonder and a late, like the Telephone or maybe a third, Champion of England. Put in some early potatoes, garden beets, half-long orange carrots, prizetaker onions, sowed thick, and thinned for early use, lettuce and radishes (there are many good varieties), spinach and parsnips. It is pretty safe to plant a first planting of golden bantam corn at this early planting. If it freezes down, it is a short job to replant and the work is done while steam is up and she has the man power under control.

I find what the man needs most at this time after he is once under way is to be told exactly what to do and to feel that he has no responsibility in the matter. Under these circumstances if he is judiciouly handled, not scolded for the mistakes he makes, he will stay until this first planting is done. I suggest to the foreman in this case that she judge not from the standpoint of perfection, but rather from a probably "no help at all" point of view. That is where psychology comes in.

Now if this preliminary adventure has worked out all right, the later and final one will be easier. Now comes the second planting of corn, string beans and lima's, if you can grow them, cucumbers—summer and winter squash, set out the tomatoes and peppers. Sow a few more radishes if you like them.

To be sure the job is only begun, but the same engineering ability that has gone so far will find a way through. Rather than to fall down by the way there may be some young folks in the neighborhood who would help if paid for their labor. Just before the Fourth and during school vacation if the farm men folks fail to make good, maybe there are children in the family who would under good management weed and hoe.

Because the women folks like gardening is no reason why they should be expected to do it all

I can't see anything unrighteous in the wife taking over this business where it is reasonably possible to do so, but when she has to leave her work and the children are galloping off, more energy than would clean up two gardens or the men folks are equally inelastic, then it's an outrage. The garden job is for the whole family because the value of it is for them all and it ought to be so considered. But I think it is the wife's job to order and arrange and stand back of it until the last old blanket is taken off the tomatoes and cucumbers in the fall.

I am perhaps committed to this plan because frankly I don't like to tend the garden. But I do help out under the general direction of Mrs. Cook. She wants a garden, and she gets it, and has flowers in it. Now this garden wouldn't take a prize at a garden show, but at the same time we seem to be living from it all through the season with small fruits on the side.

I haven't said much about the technique of gardening because I don't know much about it. As I see the situation, however, the main thing is to get a few standard plants to grow fairly well that will most interest the rank and file of farm wives and families. In justice to the much discredited men folks let us say that the mornings and nights chore of milking and caring for stock absorbs the time that others who make a garden during these hours. Some folks fail to reckon with that. Maybe it is a fundamental cause why the dairyman's garden is not always what it should be.

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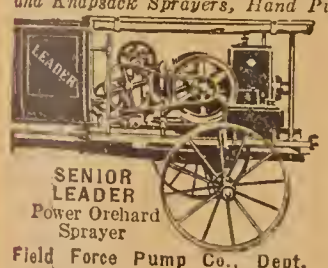

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Making Gardens Yield Their Limit

(*Continued from page* 183)

gardens, when liberally manured every year and also treated with 700 to 1,000 pounds of acid phosphate to the acre annually, will give highly satisfactory results.

But other elements may be needed. It is well to keep a supply of nitrate of soda on hand. Some of this, say 100 pounds to the acre at planting time, especially for the very early spring plantings, generally proves effective. It may also be used as a top dressing during the summer, whenever any crop shows the need of additional nitrogen.

And how about potash? We got along very well without it during the war and naturally we are now reluctant about recommending its use in all cases. But we should keep open minds on this question. The chances are that when prices are reasonable it will pay to use some potash in the home garden. It will do no harm, at least, and why not put in a little potash, just as we add a little buckwheat to the poultry rations.

A liberal supply of fresh vegetables is even more important than an egg basket well filled. And the vegetables have such a high value in producing good health and strong bodies, that we simply cannot afford to take chances in not meeting every possible requirement. So let us use rotten manure, poultry droppings, lime, nitrogen, phosphorous, potassium in proper amounts and, if possible, install a modern sprinkling irrigation system.

The Small Greenhouse for Out-of-Season Crops

More and more is it becoming true that the commercial gardener does not win his profits through doing the thing that any farmer can do. Almost anyone can have tomatoes in August and September. Enough general farmers do have them to wreck the prices on many a market. Pin-money competition does not count the cost in a business-like way. Thus the skillful grower finds that his gains come when the ordinary man is not on the market. This usually means early or late. The early markets are far better than the late ones. To meet this market with several of the leading vegetable crops, it is necessary to set out well grown and well hardened plants. Many men rely for a while upon hot-beds and cold frames. Ordinarily it is not long until the need for a small greenhouse is felt.

With careful selection of material it is possible to build a good little house for a thousand dollars. If the gardener is somewhat of a mechanic—and he usually is—he can do most of the work himself. Pipe for framing and heating can sometimes be picked up at a bargain. A hot water boiler is usually best adapted for the small house; and a used house heater has served more than once. Thus can the cost be greatly reduced and it is surprising how much even five hundred dollars or less will do.

The man who has equipped himself with a greenhouse finds immeasurable advantage in control of growing conditions. Thus he is able to get the kind of plant he wants. Work is also much more conveniently and efficiently done. Many gardeners go into the selling of plants and then, after a time they find it profitable to plant lettuce and cucumbers or tomatoes for indoor crops before and after the plant growing season. Many times have such men grown into the glass-house business until they are able to employ help the year round and so gain a profitable income for every month of the year.

One should not be stingy in the amount of ice to be packed. A few extra tons put in now, perhaps more than you think really necessary, will allow for the wastage that often results from insufficient covering or from any one of several different causes. Usually we run short of ice when we need it most.

Have been a subscriber to the American Agriculturist for a long time and profit a great deal by its advice.—ELMER P. FLANSBURGH, Greene County, N. Y.

FROM A KODAK NEGATIVE

Kodak on the Farm

While there are always pictures for fun, you will especially appreciate the practical purpose Kodak serves on the farm.

For example, pictures like the illustration above are *selling* photographs. In correspondence and advertising you need them, as picture records you want them. The Autographic Kodak gives them, the easiest way—and complete even to date and title.

Just press the button and write in the slot.

Autographic Kodaks $6.50 up

At your dealer's

Eastman Kodak Company, Rochester, N.Y.

Planet Jr. No. 17 single wheel hoe opens and closes furrows for seed and fertilizer, hoes both sides of the row when plants are small, and cultivates deep enough for all garden purposes. It makes thorough hand cultivation a pleasure.

This mark and the name "Planet Jr." identify our products

Planet Jr.

Compare its work

Hoe one row with an old hand hoe. Cultivate the next one with a Planet Jr. No. 17 single wheel hoe. You'll find that you can work several times as fast with the Planet Jr., and the work is much smoother and cleaner. There'll be no kinks in your back when you're through.

Every farm should grow its own vegetables. Give the boy or girl a Planet Jr. No. 17 wheel hoe. They'll gladly take charge of the garden then. At your Planet Jr. dealer. Send for catalog.

S. L. Allen & Co., Inc.
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ASPARAGUS $250 to $300 Per Acre Per Year

BEDS GOOD FOR 15 TO 20 YEARS

Good Fat Roots true strain, of the new Mary Washington, the mammoth rust-resisting wonder variety. Early, prolific, large size yet tender. Easily grown and hardy. Collins 1923 Planting Guide lists all proved variatias. Send for your copy today.

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HUBAM SWEET CLOVER, Scarified, high germination and purity. Grown in New York. Price, small lots, 50 cents per pound, postpaid. Bushel lots or over, 40 cents per pound.

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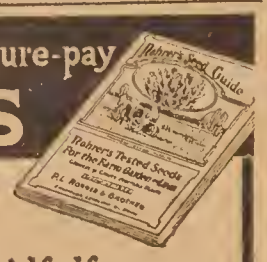

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GOOD SEEDS

Grown From Select Stock —None Better—53 years selling good seeds to satisfied customers. Prices below all others. Extra lot free in all orders I fill. **Big free catalogue** has over 700 pictures of vegetables and flowers. Send your and neighbors' addresses.
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We try them all and find these the best from early to late. Send for our price list to-day of all kinds of Vegetables, Plants, and Garden Seed.

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You can rely on our 45 years' reputation for square dealing. Kelly's trees (all varieties) are sturdy and well-rooted, perfect specimens and guaranteed to satisfy. You take no risk. Send for 1923 Free Catalog.

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lower in price today than we will ask later. Act quick—supply limited—market advancing. Buy now—your grass seed—our prices subject to change. Have wonderful values in guaranteed high grade tested Iowa grown Clover, Also Sweet Clover, Timothy, Alfalfa, Hubam and all farm and garden seeds. Our prices lowest yet. Save money. Write today for FREE SAMPLES, special prices and 116-page catalog.

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Field selected rack dried 98% germination Improved Champion Yellow Dent Seed Corn at $2.50 per bushel on the ear. Ripens in about 125 days and an enormous yielder. Has averaged over 130 bushels shelled corn to the acre. W. W. W[illegible]N, P. O. Box 469, Hummelstown, Pa.

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A. G. ALDR[illegible] FISHERS, N. Y.

The Seed Problem

Buy Early, Carry Reserves, and Test

By PAUL WORK

CLEM GARDNER has learned that his best paying crop is early tomatoes for the nearby factory town of Hopsaddle. He has four acres of warm sandy loam on the southeast slope of the farm, just below the house. He has built up the fertility of the patch and he sets tomatoes on half each year. His little home-made greenhouse and coldframes, plus some skill and a great deal of care, give him plants that are ready to bloom when setting time comes. Clem has had his seed from a seedsman who grows his own of Earliana and a few other items. He figures that good seed is one of the main reasons for his success. He had never had any difficulty getting this seed, and he was not in the habit of ordering any too soon. He was a bit upset a year ago February when his dealer reported that the crop last year had been a failure and that he was entirely sold out. Gardner had only an ounce left from the previous year, and he had to use what he could get for the rest of the planting. When picking time came, the acre set with plants from the old seed began to yield two weeks ahead of the new, and it yielded the bulk of the crop while prices were still high. The other three acres gave an abundance of crooked fruit, and he had trouble selling at all.

PAUL WORK

Clem Gardner was mad. It galled him considerably to see Mike Quattrini, the little Italian up on the heavy soil above town, bringing in two bushels to his one during the first few weeks of July. He cut loose at the Grange that Saturday night with the idea that there ought to be laws to keep the seedsmen from selling any but good seed. He was in a mood to put some fire into his remarks, and before long a good, live discussion was going, mostly to the effect that the seedsmen have been cheating the farmer right and left, and that they ought to be prosecuted. After a time, the Lecturer called for William Perrine, who was a little slow on the floor, but who got credit for as much horse sense as anyone else in the Grange.

"I am sure we farmers have been letting some of the seedsmen, produce men, and a lot of others, get away with crimes just short of murder. I'm not sure, though, that the Legislature is the only place to look for help. Laws can help up to a certain point, but good laws can only be made when we can clearly state what is legal and what is not. You can tell whether timothy seed is timothy seed or not, and how much chaff there is in it—or, at least, the experts can. A laboratory can tell how many seeds in a hundred will grow, though they tell me there are questions even there. Laws on purity and germination have helped us a heap in getting good field seeds. Even so, perhaps the greatest help has been in showing us the difference between good seed and bad.

Must Test Seeds as We Do Cows

It would not be easy to enforce a law requiring that no one sell for dairy purposes any but good cows. Who is going to say? What one calls a good cow, another calls a poor cow. Some markets use a Crosby Egyptian beet, with distinct white rings. Others must have as nearly solid color as possible. We might make it a crime to sell chard for beets or to sell rape for rutabaga, but that seldom happens and our worst troubles concern less distinct differences in type.

"I have no defense for the seedsman that fails to give as good seed and service as we pay for. I have a notion, though, that the fault is partly ours. There are two sides to a good trade—the buyer has a part as well as the seller. Have we not failed to do our part?

"It is the buyer's part to form an opinion as to the integrity of the seller. The seed business is a business of trust, and the integrity of the seedsman is fundamental. Now and then I get a jolt, but not often.

"It is the buyer's part to know just what he wants. I must decide just what suits my market or family, my climate and my land. If catalogue or salesman fails to tell me, I ask whether Gulf State is a red or pink tomato, whether Alpha is a six-row or two-row barley, whether Golden Acre cabbage is as early as Jersey Wakefield. I like to buy as near the source as I can. Less room for mistakes. Seldom does one house get my whole order, and I do not stop on price, provided I am satisfied that I am getting my money's worth in quality.

"Then, when a big crop depends on a little seed, I buy a year in advance and try it the preceding season. I find now that a few seedsmen are making it possible by the use of stock-numbers or other designation for the market gardener to be sure of getting the same thing again if he wants it and it is available. If we will learn a fraction as much about seed buying as seedsmen know about seed selling, we will be able to get much better than average seed service."

Careful selection of seed stock will increase the uniformity of the product which is a step toward easier and better marketing

When the season was over, Gardner sat down with his market book to tally up results. He had kept careful record of the acre planted to old seed and of one of the three acres planted to the new and untried seed. Here is the table he had when he was done:

Week of Harvest	Average Price p. basket (25 lbs.)	OLD SEED Yield baskets	OLD SEED Return	NEW SEED Yield baskets	NEW SEED Return
1st.....	$5.00	15	$75.00	0	$00.00
2d.....	2.45	52	127.40	12	29.40
3d & 4th	1.60	208	332.80	128	204.80
5th & 6th	.90	160	144.00	196	176.40
7th & 8th	.50	40	20.00	158	79.00
		475	$699.20	504	$489.60

Difference, $209.60.

The yields were nearly the same—the late strain giving the heavier crop. Figures are gross and represent the results that a skilled grower might realize when trying at heavy expense for first early market.

That was the last of September, and Clem Gardner decided to take no more unnecesary chances. He thought the necessary chances were great enough. When his State Vegetable Growers' Association met at Summerville in November, he made the trip with the specific idea of finding out more about good seed. He had never been to the meeting before, but he soon found a grower who said: "You want to see Art Freeman from Deerfield. He beats his neighbors by a week to ten days every year. Clem found Freeman, and the two were soon buried in the deep cushions of a settee in the lobby of the Old Windsor. The rest of the session brought out the same story—buy early, carry a reserve, test for the best varieties.

MAULE SEED BOOK 1923—Sent FREE

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Alfalfa

Sow our Northern-grown American Seed. Plump, clean and hardy. Guaranteed. Write for free Samples, Prices and new Catalog of Farm Seeds. Mention this paper.

A. H. Hoffman, Inc., Landisville, Lanc. Co., Pa.

"More Potatoes"

From ground planted secured by use of The KEYSTONE POTATO PLANTER than by any other method of planting. Work perfectly accurate. A simple, strong, durable machine. Write for CATALOG, price, etc.
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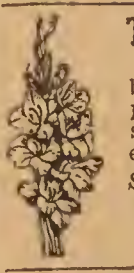

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Raspberries For All

Preferences In the Garden Fruit Patch

By SAMUEL FRASER

ONE of the best things to give the children as a relish is fruit. Fruit is not only a food, but it furnishes certain acids, ethers and alcohols to the system and are an aid to digestion.

In some cases there are individuals whose systems do not readily utilize some fruits. This is the case with the strawberry. Some people cannot eat it without feeling the after effects. I have never heard of any such claim being made against the raspberry. It is one of the most highly appreciated of fruits, eaten either raw or cooked.

The raspberry is one of those fruits which is not only desirable to grow, is hardy and highly esteemed, but its cultivation is relatively easy. It can be grown in every garden, little or no spraying is required, and the plants show considerable ability to care for themselves.

Drawbacks that are Advantages

The drawbacks to the extensive planting of raspberries are those which make the crop valuable for the home garden. The crop ripens unevenly and the plants have to be gone over three or four times to harvest it. The labor problem is serious if one has an extensive planting, but a small patch in each garden where the children can earn enough to buy a thrift stamp, is possible on almost every farm.

Picking fruit is an ideal way of extending the activities of not only the rural but the urban population. There are many people to whom a raspberry patch would be an acquisition. The fruit is perishable. It cannot be sent far. As a general statement, this is correct, although red raspberries are sent from the Payallup Valley, Washington, to Pittsburgh, Pa.

The plants can be set out this spring, any time until June. If a neighbor has a patch, a good job for a wet day in the end of May is to go and visit him and dig up some of the young plants which are coming up between the rows and transplant them. Little difficulty will be experienced in making them live. The red and yellow raspberries send up a large number of suckers and are multiplied in this way. Some of the purple raspberries, such as Columbian, are usually propagated by bending the tips of the canes over in August and covering them with soil which enables them to take root. These are dug up the same fall or the next spring and sold as "tip layers." The black raspberries also are propagated in the same way. Plants of named varieties can be easily secured from the nurseryman.

The Soil Preferences

The soil should be deep and moist, the red raspberries doing best on the lighter loams, the blacks on the heavier loams. The red raspberry is more hardy than the black and can be grown as far north as the Yukon.

The wild raspberry indicates to us what the requirements are, a soil rich in humus. The plant usually grows in the fence row where the humus content is highest. The land should be well prepared before planting. The strongest plants are the best. This statement means that the man who has the nerve to throw away two out of every three plants, using only the strongest and best rooted will make money thereby.

The common distance to plant the red and purple varieties is in rows 6 or 7-feet wide, with plants 2 to 3-feet apart in the rows. Some of the purple and all of the black raspberries are usually given more space, with rows up to 9-feet wide. In a farm garden, it is best to give plenty of room and cultivate with a horse. Where the garden is small, raspberries may be planted along the fence of same and given less room.

It is a strong grower, the fruit is large, the plant productive. At Webster, N. Y., one grower has secured 4,000 quarts an acre. Previous to the war, he paid 2 cents a quart for picking and a good picker takes off 100 quarts a day. The patch is picked four times.

A normal yield is from 1,600 to 2,400 quarts for the black raspberry and 1,400 to 2,000 quarts an acre for the red. Shaffer's Colossal, a purple, is also highly regarded. New varieties are constantly being developed and many of these have very excellent features. However, it takes time to determine how really permanent these good qualities are. For that reason the main portion of the berry patch should be set to old, tried and proven varieties.

CURRANTS PAY WELL

R. C. GROVES

The currant is one of the least grown and probably most neglected bush fruit, largely because it is seldom eaten fresh. Nevertheless I find it a profitable crop, as there is always a lively demand for the berries for making jellies, jams, pies, and wines. While the currant will respond as well as any other fruit to the highest cultivation, it will thrive under greater neglect, and is less particular in its demands for attention at the critical moment. One can extend the picking season over a period of six weeks and the pruning season six months. During July, August and September, hardly a shrub surpasses the currant in beauty. It is good for a crop every year for ten or fifteen years.

One would ordinarily be successful in growing it among grape vines and as a filler for orchards between rows of trees, but not between trees in the rows. The shade will not hurt them, but they could not be expected to survive in the struggle for plant food with the tree. It does best upon a rich, cool and moist soil, not one poorly drained, and therefore cold and wet. A Northern or Western exposure is best. The currant is hardy and will stand any amount of cold weather without appreciable injury, in fact, better than it will stand too much heat. Planting may be done either in spring or fall. I prefer to set one-year old plants as I think one can form the heads a little better. I try to make it into bush form, by cutting it back until I get a half dozen branches.

Laying Out the Patch

If it is planned to cultivate both ways they would be set out 5 x 5 feet. The ground should be well cultivated before planting and plants set fairly deep. After the first year, the plant should not be cultivated too deep, as the roots tend to grow near the surface and deep cultivation will cut them off. The necessary moisture may be maintained by continual cultivation or by mulching. Cultivation will probably come nearer keeping out diseases and insects and encroaching of weeds than a mulch. Ashes, sawdust, straw and manure are used for mulching, applied to a depth of several inches. The best method of mulching is to confine the application to the hills, or the row, where the continuous row is used. The space between the rows is then kept cultivated.

In pruning I remove branches over three-years old, thin the bush to admit sunlight and air, and to head in long irregular growing branches. It is best to do the pruning in the spring, although if necessary it may be done in the fall.

There are three distinct types of currants, red, white and black. The red is the most popular type, but the gardener who caters to the different tastes of his customers should grow several varieties, for no one variety combines all the desirable qualities. Thus the Red Dutch far surpasses all others for making jelly, but it is a poor dessert currant, and on account of small size it is one of the poorest for marketing. On the other hand the Red Cross is one of the best for marketing, excellent for dessert, but it makes a very poor quality jelly. The white grape is most remarkable for its enormous clusters of beautiful fruit and surpasses all others as a dessert currant, but it is not in high esteem as a market currant. Black currants are almost unknown on the market, and have a peculiar objectionable flavor, which may be remover, however, by scalding in boiling water.

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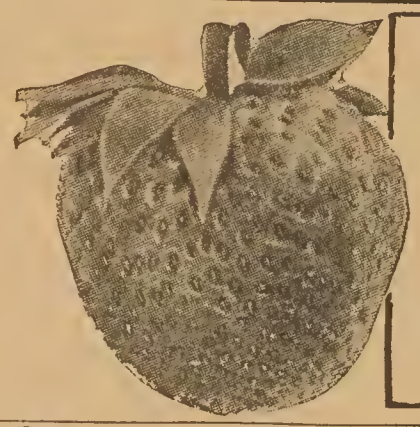

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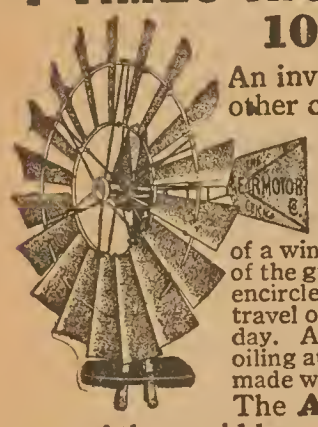

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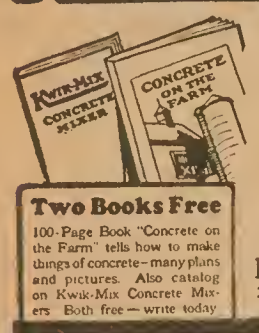

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Paints and Brushes

Pennies Invested Yield Dollars in Appearances

By K. J. T. EKBLAW

TWO first-class reasons for using paint are, first, that it is a splendid preservative, and second, it is a great factor in improving the appearance of anything to which it is applied. With the present high price of wood, and the difficulty of obtaining it, behooves the owner of buildings, if he is possessed of business sense and shrewdness, to keep his buildings well painted. In spite of the fact that paint is the best life insurance for wood and often for metals, one can see from one end of the country to the other farmstead after farmstead dilapidated in appearance, and machine after machine succumbing to rust.

The expert painter is presumed to know everything connected with the subject of paint, from its composition and manufacture to the best methods of application to all kinds of wood under every varying condition. Such proficiency is commendable in one who makes painting his business, but an ordinary person should be satisfied to know how to take care of his brush, what kind of paint to use, how and when to apply it.

The Care of the Brush

Brushes and their care are really worthy of very careful consideration. The man who sells brushes will tell you that good brushes are very hard to obtain. You will find out for yourself, when you come to buy them, that they are quite expensive. The amateur painter need not buy an expensive outfit to handle his job, however, for about all that he needs, other than the brush, is the paint, its container and a ladder high enough to reach the highest point to be painted. Consequently one can buy good brushes with a clear conscience.

The best brushes have bristles 5 or 6-inches long, which of course is really longer than is necessary, but the ends will gradually wear off as the brush is used. In order to protect the base of the bristles, when the brush is new, it should be "bridled," or wound with stout cord as far from the base as necessary, securing the ends of the cord by tacking to the brush head. For painting small surfaces such as window sash, narrow trim, and the like, a small-round brush is used about one-inch in diameter, with chisel point. Special brushes are used for varnish; these are oval or flat and are narrower and shorter than regular paint brushes. Whitewash and calcimine brushes are made 7 or 8-inches wide in order to do rapid work, for these coatings are not to be worked into the wood, but are simply laid over the surface.

Some brushes have the bristles set in glue, others in cement, and still others, of the best manufacture, in rubber. Glue set brushes of course should never be left standing in water, nor should the cement set brushes be placed in a mixture containing alcohol, such as shellac. Glue set brushes are used in shellac or varnish, while paint brushes are usually cement or rubber set.

To Get the Most Out of a Brush

In order to get the best efficiency out of a brush it should be kept absolutely clean when not being used. For an over-night interval a complete cleaning out of the brush is not necessary. All that is required is to wrap the brush with several layers of thick paper or place it in water so as to keep the paint from drying out. To clean the brush thoroughly, kerosene should be used, after which it is dipped in gasoline or benzine, then the brush is washed with soap and water and well shaken out to remove as much water as possible, after which it is put in a place where it will dry and collect no dust. If a good brush has been allowed to dry full of paint, it can be cleaned fairly well by soaking the bristles for a day or two in a paste made of water and washing powder, and then rinsing it well in clear hot water. Sometimes just as good a job can be done by soaking it in turpentine or dilute ammonia for several hours, then washing thoroughly in soap suds.

The bristles of a new brush should not be wetted before using. However, it is desirable to swell the head by placing the brush, handle down, in water deep enough to cover a point just below where the bristles emerge from the binding. No bristle brush should ever be used in a solution containing lime, for it is very destructive. Every new brush will shed a few bristles, but generally these are loose ones which have not been well bound in, but if the shedding continues, a very little hot water poured into the middle of the bristles will cause the head to swell and bind the bristles in.

Shall I Buy or Mix?

The question is very often asked—"Is it cheaper to buy ready mixed paint or to buy the materials and do your own mixing?" The chief disadvantage in home mixing of paints is the work involved because if the paints are to be good they must be very thoroughly mixed, and the hand mixing is very arduous.

Perhaps the paint that is most commonly made at home, is the ordinary white paint used on dwellings. It is a mixture of a white pigment, usually white lead or zinc, or a combination of the two, with linseed oil. By including various pigments, in different proportions, an almost infinite variety of colors can be secured.

The most common vehicle used in the manufacture of paints is linseed oil, and it may be either raw or boiled. Boiled oil dries rather quickly, which makes it advantageous for use in outside work. For the interior, raw oil is more suitable, though it takes two or three times as long for it to dry as the boiled oil. When linseed oil is spread out in a thin layer it gradually hardens and a thin film first forms on the outside, which thickens until a firm layer of varnish-like material finally develops. In this it is different from most other oils, which either disappear or form sticky coatings. This hardening quality, possessed by linseed oil to a great degree, and to a less degree by a few other oils, is known as drying. It is not drying in the sense of water drying by evaporation, but instead is an oxidation or absorption of oxygen, and is a real chemical change rather than a physical one. Certain materials will hasten drying and these may be added to the paint when it is desired to get quicker results. Not more than 10 per cent of dryer should be added, however.

Making the Application

In painting new wood, several coats should be applied, the first called the priming coat, consisting usually of equal volumes of linseed oil and white lead, with a little dryer. Some wood, such as cypress or hard pine, contains a resinous material which prevents the paint from sticking readily. To obviate this difficulty, a little turpentine or benzine is mixed with the paint to cut the resin. The wood, of course, should be dry because if it contains an undue amount of moisture it will boil out and cause the paint to blister or scale off. After the priming coat has been applied, all knots and sap spots should be covered with shellac so that the subsequent coat will adhere well. On new work at least two more coats should be applied. On old work, it is pretty difficult to get a good job done with a single coat; two coats are much better and will last more than twice as long as a single coat.

The value of an occasional coat of paint applied to farm machinery is too often overlooked. Painting metal is not difficult except in the case of tin or galvanized iron, both of which materials are manufactured in such a way as to leave a greasy coat upon them, which prevents the paint from adhering. Scrubbing the surface with hot water and soap or with benzine or gasoline will remove this grease, but it should be dried well before paint is applied. When ordinary farm machinery is to be painted they should be very thoroughly gone over so as to remove every trace of oil, grease or rust, if necessary scraping down to the

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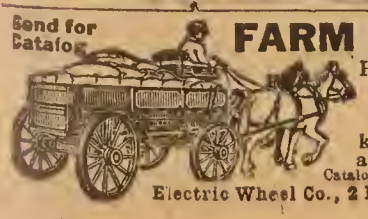

FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free

Electric Wheel Co., 2 Elm St., Quincy, Ill.

bare metal with scrapers or a wire brush; extra pains taken in this process will be well repaid.

Many people think that it does not pay to paint, but it is just as profitable as washing ones face; do not be afraid to paint; do not be afraid of paint. There is such a thing as lead poisoning, but instances of farmers becoming afflicted with it are extremely rare. Paint is a good thing on farms, and an investment in it is sure to bring good returns.

PREVENTING THE BLISTERING AND SCALING OF PAINT

We have a house which has been built about 25 years. It has always been painted in good shape, but the paint has always scaled off after a year or so. Two years ago it was scraped and extra pains taken in painting, but now the paint is coming off. It raises up in big blisters and peals off. Ready mixed paints and also lead and oil have been used but with the same results. Can you suggest a remedy for this trouble?—R. E. A., Pennsylvania.

It is sometimes a little hard to tell just what causes paint to scale off. It may be the quality of the paint itself, but if you have always had this trouble with paint, it would seem that something else was the matter. It may be that the wood is unusually porous, and that it absorbs the oil so fast out of the paint that it does not have a chance to dry properly. This absorption would leave an undue amount of pigment on the surface, and if deprived of its carrier would naturally scale and crack. A remedy for this would be to put on a priming coat of almost pure oil, with just a little pigment in it, and let this fill up the pores.

I note that you mention the big blisters. Blisters are usually caused either by moisture in the wood, which has been painted while it is still damp. The sun's heat aso causes formation of steam, and the steam rises and will cause the blisters. It also sometimes happens that paint itself is very slow drying, and will blister in very hot weather. The remedy for this is to put more dryer in the paint.

INSTALLING LIGHTNING RODS

A lightning-rod agent is in this district. I have just erected a new barn and of course he is anxious to rod it. Will you tell me candidly, are they any good? Opinions vary. Some farmers think they are all right, while others think they are useless. Kindly give me your opinion on it.—(S. P., New York.

Lightning rods were once the object of many jokes, but the old lightning rod joke is out of date, for properly installed rods have been proven a great protection from electric storms. However, if they are not correctly installed, they are worse than useless according to the rural engineers of various state colleges. When the installation is properly made, lightning rods are almost 100 per cent protection.

It is true that in years past the lightening rod agent was classified with the gold brick salesman. However, to-day manufacturers of lightning rods are giving a thoroughly reliable product, providing the rods are installed properly. Rods should not be insulated from the building by glass or porcelain. They should be attached directly to the buildings with clamps or special fasteners. Conductivity is the most important factor in the choice of materials. Copper is the most satisfactory in this respect, although some rods are made of iron and others of aluminum. Braided copper is of more value than the same weight metal in the solid rod.

In installing rods care must be exercised that there are no sharp turns or sudden curves in the conductors. The conductors must be grounded under several feet of soil where there is permanent moisture. Broken or disconnected conductors are a serious danger.

SICKLE BAR BREAKS

Why is it that the sickle bar on my mower is always breaking? It breaks just a few inches away from the ball and socket joint, where the pitman is attached.—P. T., Pennsylvania.

Probably the reason you are having trouble with the mower is that the machine is pretty badly worn, or that it is out of adjustment. If the machine is worn so that there is a sort of a flapping of the sickle bar, the vibration will cause a crystalization of the metal in the sickle bar, and sooner or later it will break.

"My Engine will do the work of 6"

Read the Amazing Facts about this Wonderful Farm Engine

"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."

A. Y. EDWARDS.

Read What These Users Say

LIGHTING HOUSE, BARN AND GARAGE
"I want to tell you the Edwards is the smartest little engine that you ever hitched a belt to. I am running a seventy light, direct current generator to light the house, barn and garage, and as for general farm work you could not purchase a better one."—L. G. DAVIES, Plymouth, N. H.

BEST ENGINE EVER BUILT
"I do not hesitate to recommend the Edwards Engine for all general farm purposes from 1½ to 6 H. P. I have tested it on feed grinding and sawing and it gives perfect satisfaction. It gives a steady flow of power, and it always starts. I think it is the best engine ever built." — WM. H. LUTZ, Sugar Grove, Ohio.

EASY TO MOVE—EASY TO RUN
"I run wood saws, cement mixers, threshing machines, etc. Let me tell you, it is the most wonderful engine I have ever seen or run. It is so easy to move around and so easy to run. I would not have any other engine. I would advise any farmer to buy the Edwards." —FRANK FOELL, Cologne, N. J.

THE ONLY FARM ENGINE
"My Edwards Engine has proven most satisfactory. I have used it nearly every day for two years. Hot weather or cold, it starts easily and it has never once gone back on me or given the slightest trouble. I have given it hard use and it has never cost me one cent for repairs." — OTT FISHER, Leffel Lane, Springfield, Ohio.

WONDERFUL POWER
"We hitched the Edwards to a 30-inch saw and could not phase it. The next thing I hitched it to was a Sandwich four-hole corn sheller. The man that owned the sheller said that it was equal to steam for regular power. I would advise any farmer to buy an Edwards." — PARKER LICHTY. Carlisle, Pa., R. D. 7.

PERFECT BALANCE
"Several of us were discussing the balance of the engine the other day and we picked up the Edwards Engine, while it was running and placed it across a trestle. It was not fastened or supported in any way, merely placed on the trestle which was only 3 inches wide. We had it running in this manner for about twenty minutes and changed the speed through the entire range—a truly wonderful demonstration of balance."—HARRY TEACH, Chief Inspector, The Edwards Motor Co.

My engine—the Edwards Engine—will do the work of six ordinary farm engines. And I am willing to prove this to your entire satisfaction. I don't want you to risk a cent or to place yourself under any obligation.

No Other Engine Like It

For thirty years I have been designing and building engines of all types and sizes, from one horsepower to one thousand horsepower. Every working day of my life in business has been devoted to internal combustion engines. The farmer's power needs have been uppermost in my mind during these years. My experience on a farm proved to me just what kind of an engine a farmer needs. It was a problem that required a complete knowledge of what could be done or should not be done in building engines.

Six years ago the Edwards Farm Engine was put on the market, and today thousands of farmers who own Edwards Engines tell me that I have solved the problem of farm power. There is no other engine like it. It will do more for you than any other engine possibly could do.

6 Engines In 1

It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P. You can change power instantly while the engine is running. Change it as you need it,—1½ H. P. when you need 1½, or 6 H. P. when you need 6. Or any power needed in between these two.

Wonderful Economy

Fuel consumption is always in proportion to the power used, and is remarkably low at all times. It burns kerosene or gasoline and will do the work at a fuel cost so low it will surprise you.

Easy to Operate

The Edwards Engine is so light that two men can carry it easily from job to job. Pick it up and set it down anywhere. It is so perfectly balanced that it requires no anchorage. This wonderful balance and smooth running also make for long life and durability. Easy starting, no cranking.

For Every Farm Job

The Edwards Engine will run a feed cutter, corn sheller, fanning mill, light plant, saw, washing machine, small silo filler, fodder cutter, pump, milking machine—these and many other pieces of power equipments on your farm. And it does each of these jobs economically with fuel consumption according to the load pulled—not another engine on the market can duplicate this guaranteed performance.

Prices Lower Than Before War

My prices today are lower than before the war. They offer you real economy in first cost as well as in operation.

FREE TRIAL

The Most Liberal Offer ever made by any Engine Manufacturer!

You can prove all my claims to your own satisfaction. I am willing to send you an Edwards Engine for absolutely free trial. I don't want you to send me one penny or to obligate yourself in any way. I just want you to take the engine and try it—use it for all of your farm work, put it on every job you can think of. After that, if you're not satisfied, you can return the engine to me without the payment of a single cent.

Free Book

Without any obligation to you, I will send you a free booklet describing the Edwards Engine in detail, giving proof of every claim I make and telling you all about my Free Trial Offer. Just fill in and mail the coupon.

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The Edwards Motor Co.
533 Main St.
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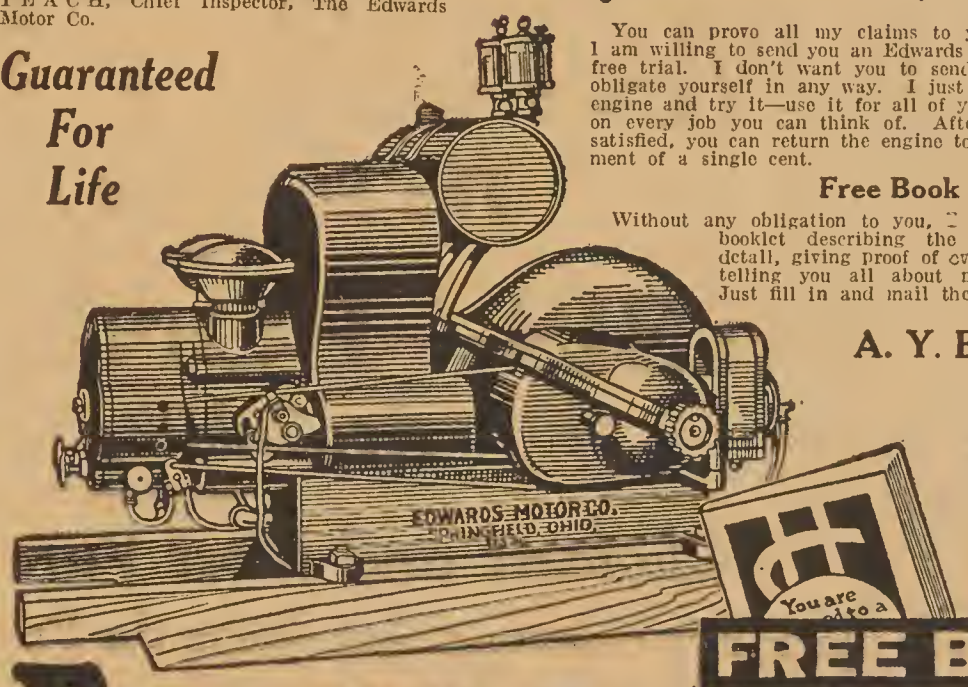

EDWARDS FARM ENGINE

FREE BOOK

THE EDWARDS MOTOR CO.
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Gentlemen:

Please send me your four free booklets and details of your free trial offer. This does uot obligate me in any way.

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.....

High Analysis Fertilizers Give Most Value For Money

And the Same Principle Applies to Seed Purchasers

MARKED progress has recently been made in the development of mixed fertilizers of high analysis. For a great many years mixed fertilizers of extremely low analysis, such as 1-8-1, 2-8-2 and other formulas even lower have been offered for sale and their sale pushed vigorously by various fertilizer manufacturers. This was due in a large measure to a desire on the part of the farmer to limit his fertilizer expenditures as much as possible. Now, however, because of the activities of the departments of agronomy at the various agricultural colleges and determined efforts on the part of some of the more progressive organizations selling fertilizers, the practice of selling these low grade analyses has stopped to a certain degree.

Cooperatives Back High Analysis

A striking illustration of this development is the stand which has been taken by one of the large state-wide farmers' cooperative organizations which has refused to sell to the farmers of the states in which it operates any mixed goods formula containing less than a total of 16 units of plant food. This presents a two-fold advantage.

First—A considerable saving is effected in the freight because with a high analysis, more plant food is present in every ton of fertilizer, and freight is paid on plant food carrying material rather than useless material having no plant food value.

Second—Because of the concentration of the high analysis formula the application per acre need not be so heavy. For instance, if a farmer has been accustomed to using a 2-8-2 making an application of 300 pounds to the acre, he can now use a 3-12-3, which is in exactly the same proportion, and apply only 200 pounds per acre, securing exactly the same amount of plant food per acre that would be applied in the 300 pounds of 2-8-2. Thus it is possible to eliminate the low grade mixture and save money by using two-thirds of the higher formula.

Fillers Reduced

Hand in hand with "high analysis" fertilizers are to be found "no filler" fertilizers. Here again, similar extravagant practices have developed. The farmer has used mixed fertilizers containing a considerable amount of "filler" or "make weight" which has no plant food value. It has been necessary to pay freight on this useless material from which no benefit could be derived. With the advent of the high analysis fertilizer, it has been possible to make nearly every formula without filler, thus making it possible for the buyer to purchase a ton of fertilizer and know that he is getting plant food carrying material in every pound of that ton.

It is necessary this year for the farmer to be more conservative than ever in making his fertilizer investment. He must get full value for money invested. One of the surest ways to accomplish this is to insist on "high analysis," "no filler" fertilizers.—W. L. GAY.

CHEAP SEEDS VERY COSTLY

Poor seed is responsible for a lot of losses and a lot of discouragement. There is little point in working a whole season to produce a crop only to have it result in failure because it did not get a good start. It ought to go without saying that cheap seed is dear at any price, and yet there are many farmers who annually save a few cents on their seed purchases and lose many dollars because of the unwise saving. Nothing that we have read in some time brings out this fact more clearly than a letter which we recently received from a large wholesaler in farm seeds. Because this writer is so absolutely right and the subject is so important we are publishing the letter for your benefit, hoping that it will make some difference i the quality of seed which farmers purchase for the coming season. The letter follows.—THE EDITORS.

From information gathered by our salesmen together with letters coming into the office combined with conversations I have personally had, it seems that the very large bulk of seed oats which are offered, are recleaned stock picked up of grain dealers. The retail trade generally are willing to pay only about eight to twelve cents per bushel more for seed oats than for feeding oats.

With many there seems to be a practice at this time of the year to get in a car of 34 to 38 pound oats which would be better than they usually bought and sell from this car for seed purposes, charging in many instances a dollar a bushel. Some of the parties doing this, run the oats over a cleaner before they put them out for seed. What they have left from the car they sell out for feeding purposes at no loss, while, on that sold for seed, approximately 40 cents per bushel will be made.

The Prices Go Up

Other dealers buy of parties who make a business of picking up good cars of No. 2 oats, and reclean them, charging possibly from 10 to 15 cents per bushel over cost to them. Some of the dealers who are making a practice of recleaning these oats pay possibly 5 cents per bushel over the market for the ordinary run of oats, this being paid to assure offerings of attractive cars of oats when they come into the market.

After the farmer has put in the expense of preparing his soil and the expense of fertilizer, if he uses it, and after having the investment in his land and the crop to harvest, how can this be an economic proposition for him?

There are available pedigreed seed oats and pedigreed seed barley which have been introduced by different experiment stations and colleges after considerable expense and trouble. At least the farmer purchasing these, knows what he is getting and can determine in a series of years whether the variety is adaptable for his location. In purchasing pedigreed seed he can know what happened to his crop if he has a failure and will not be working in the dark.

Why Pedigreed Seed Goes Slow

In approaching dealers relative to handling pedigreed seed, we find that in many cases they give as a reason that they have to extend credit for the seed, that they wish to have the least money possible invested in credits. Others state that farmers will not pay the difference and that any seed left on their hands, they cannot get their money back out of it.

If farmers would order their seed early and insist on pedigreed seed there is no doubt but what the dealers would stock pedigreed seed and I believe that we need the dealers in marketing seeds. At the present, however, the Plant Breeding Department of the N. Y. State College of Agriculture at Ithaca are issuing lists of recommended oats and barley, stating where they can be obtained.

Needs More Publicity

I feel that you can do the farmer a great service by putting in your paper at this time a strong article relative to pedigreed oats and barley as well as possibly certified seed potatoes. I do not doubt that it is ignorance on the part of the average dealer that he is offering to his clients the seed which he now is offering and there will be many cars of this seed distributed in New York State this year. Anything which you can do to change the demand and stop the flow into the east of the quality of seed oats and seed barley which are now being offered will be a great service to the farmers.

Just this morning I had a phone from a party who stated that he had an inquiry for Black Mill oats to sell for seed. As you doubtless know these are nothing but wild oats from the west.—M. C. RUMSEY.

The BEST is the CHEAPEST!

This Always Was and Always Will Be True

USE THE MAPES FAMOUS FERTILIZERS

The Standard for Half a Century

BASIS—BONE AND GUANO

Availability Without Acidity

Choicest and Most Varied Forms of Plant Food

We are pleased to announce that during the Fall and early Winter we have received two cargoes of the highest grade Peruvian Guano, and that ample stocks are assured for a long time to come.

Send for Price List and Descriptive Circular

THE MAPES FORMULA & PERUVIAN GUANO CO.

Hartford Branch: 239 State Street, Hartford, Conn. 143 Liberty Street, New York City, N. Y.

What Is Wrong With The Country Church?

(*Continued from page* 185)

Christianity. The thinking of young people of many churches is estranged by ministers who insist on the theology of three hundred years ago and call modern science the deadly foe of religion.

5. Untrained and unqualified teachers in the Sunday Schools often give the pupil many misconceptions as to what Christianity is.

6. The failure of Christian parents to give religious instruction to their children. My experience has been that not over one in ten of the nominally Protestant children of this community receive any religious instructions outside of the Sunday School.

Outside of the Church I see several nation-wide social and economic movements that tend toward the same result:

1. The depopulation of rural districts. In this section at least, the movement cityward has drawn away a larger proportion of Christians than of those who have always been outside of the Church.

2. The increasing instability of rural communities. The tenant farmers and many of the village population rarely stay long in a place and take little interest in church and community.

3. The last and greatest cause of the decline of the church is the increasing prevalence of an idea, which often dignified by high-sounding names, is always found in a decadent civilization. Plainly stated, it is the idea that it is the business of each individual to seek his own greatest pleasure, to "express himself" regardless of his duties to society, regardless of how his conduct will affect his fellow man. To that idea can be largely attributed the declining number of marriages, race suicide, the great increase of divorce, the increase of dishonesty in public and private life, and the worship of success, however attained.

To combat that idea is the chief business of the church. For one holding that idea to profess Christianity is the height of hypocrisy and many such realizing this, banish the church from their lives.—ONTARIO FARMER.

Toleration Needed

Falling off in church attendance and interest in church work are due to various causes. In this inventive and progressive age, life is becoming more complex even in rural communities. This condition tends to divert attention from religious matters to those of a more secular nature. As parents became more indifferent and less exacting, children and other members of the family naturally follow an example which eventually becomes a fixed habit and which in turn is carried on, to a certain extent, to the next generation.

Many places are burdened with more denominational churches than they can afford properly to maintain, which is discouraging to recruits and even to older members. This condition tends to react in lowering the mental standard of the clergy in providing salaries hardly sufficient, in many cases, to meet living requirements.

Many of the occupants of the pulpit are too much confined to creed and to a rut in a stereotyped form of thought and preaching to satisfy the increasing desire for more liberal and enlightened instruction and guidance.

Again the ubiquitous automobile and greater variety and accessibility of amusements offer too tempting an opportunity for recreation and diversion from the labor of the week.

As a corrective of conditions mentioned there should be on the part of the clergy fairer and greater appreciation and understanding of scientific advancement and of knowledge in general, outside of their own special theological study; more sympathy and toleration for honest differences of opinion; in a word greater adaptability to present day thought and conditions, while relinquishing nothing in spirituality or high moral standard.

As to the members there should be a greater effort to practice what they preach; a broader spirit of cooperation and disregard of sectarian differences and further a better apportioning of church to the ability of the units concerned to adequately support them without the strenuous efforts and hardships now often endured.—W. E. STOVER, Chenango Co., N. Y.

• • •

Look for the RED LINE 'round the top

It stands to reason that fifty years' experience in rubber goods manufacture would produce something very unusual in the way of footwear.

And so it has—in "Hi-Press" and "Straight-Line." Millions of wearers are daily proving that fact.

Here your footwear dollars do double duty. You enjoy a service far beyond the ordinary run of rubber footwear.

Sixty-five thousand dealers are ready to serve you. This time demand "Hi-Press" Boots and Gaiters—with the Red Line 'round the top; and "Straight-Line" Rubbers, for the whole family.

THE B. F. GOODRICH RUBBER COMPANY
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Woman's Rubber

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HI-PRESS AND STRAIGHT-LINE
Rubber Footwear
"BEST IN THE LONG RUN"

LOOK! ONLY 17¢ A Rod Up DIRECT FROM FACTORY
Don't Pay More
Peerless FENCE
NOW SOLD DIRECT From FACTORY to FARM
New Peerless direct-from-factory selling plan cuts prices on highest quality Fence, Gates, Steel Posts, Barb Wire, Paints and Roofing. Prices begin at 17c per rod! Think of it! Peerless quality, famous for 25 years, guarantees your satisfaction.
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Corrugated Metal ROOFING
$3.10 SQ. 100 Ft.
Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only $3.10 per 100 sq. ft. painted. Galvanized, only $4.30. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money.
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Experiments are revealing startling facts about feeding yeast to poultry

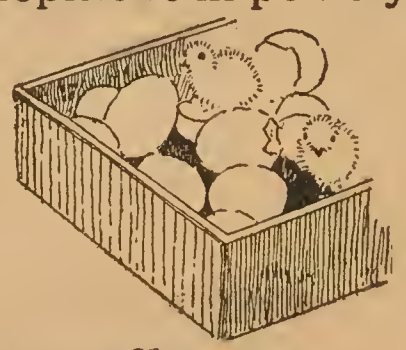
An Announcement from the Fleischmann Company to the poultry raisers of America

In the past few years, Fleischmann's Yeast has restored new health and vigor to thousands of human beings.

It has helped to renew lagging energy and stimulate appetite—to build vitality and "tone up" the whole system. Every day brings added evidence of its effectiveness for man.

And now, after many experiments, the Fleischmann Company has developed a dry *yeast for stock and poultry*.

For some time, the Fleischmann Company has been conducting a series of tests in the feeding of this new Pure Dry Yeast to poultry, in many parts of the country. The results obtained are remarkable—so remarkable that we are anxious to tell the poultry raisers of America at once the details of this unique new development in poultry feeding:



Fertility 23% greater

—reports one of the largest hatcheries in the world.

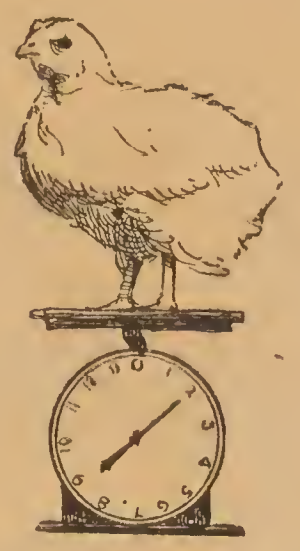
Scientists have long known that the vital elements contained in yeast have a direct influence on the growth and activity of the reproductive organs in both male and female birds. Surprising

results are now being obtained by feeding Fleischmann's Pure Dry Yeast to the flock. A test in one of the world's largest hatcheries showed that only 5% of eggs from yeast-fed hens were infertile, as against 28% infertile eggs from hens not fed yeast in the mash. This means an increased fertility of 23%.

Less loss among chicks:

Chicks hatched from eggs from yeast-fed hens have more vigor and consequently fewer die. The death rate in one of the recent tests was 93 in a hatch of non-yeast fed chickens, and only 59 for chicks fed on mash containing Fleischmann's Pure Dry Yeast. Also, the yeast-fed chicks showed no diarrhea.

In a flock fed on Fleischmann's Pure Dry Yeast, whose age at present ranges from two to nine weeks, the death loss has been only 345 out of 6,000—less than 6 per cent. "And for general development," writes the raiser, "they surpass anything I have ever raised."



Greater vitality and virility:

"Rations made up of grains, seeds, or their by-products are deficient," says an authority on scientific feeding, "unless they are properly supplemented with adequate proteins, minerals and vitamins." Fleischmann's Pure Dry Yeast contains an abundance of all three.

The owner of one of the largest ranches in America says, "I have never seen chicks feather so rapidly and develop such bone; this we attribute entirely to the addition of Fleischmann's Pure Dry Yeast, as all other conditions are practically the same as in preceding years."

You are being given the opportunity to prove for yourself, at the same time that experts are proving it in scientific feeding experiments, the value of Fleischmann's Pure Dry Yeast for your chickens.

We are now prepared to make immediate deliveries of Fleischmann's Pure Dry Yeast in 2½ pound cans, direct to you. One can should demonstrate its power in securing *more fertile eggs, with fewer chicks dying in the shell—stronger, more vigorous chicks—and faster-growing, huskier birds.* Mail the coupon today! It may revolutionize your poultry yard.

A tablespoonful daily to every 10 mature birds or every 50 chicks. For best results, feed in a wet mash, allowing the yeast to work in the mash for 12 hours before feeding. (It may also be fed in a dry mash.) Fleischmann's Pure Dry Yeast costs only 2 cents a tablespoonful.

Pin a $2 bill or money order to this coupon and mail it today. It will bring you a big 2½ pound can of Fleischmann's Pure Dry Yeast—enough to feed 10 birds for 3 months. We pay the postage.

THE FLEISCHMANN COMPANY,
Dept. D-4, 701 Washington Street,
New York City.

Enclosed find two dollars ($2.00). Please send me a 2½ pound can of Fleischmann's Pure Dry Yeast by prepaid parcel post.

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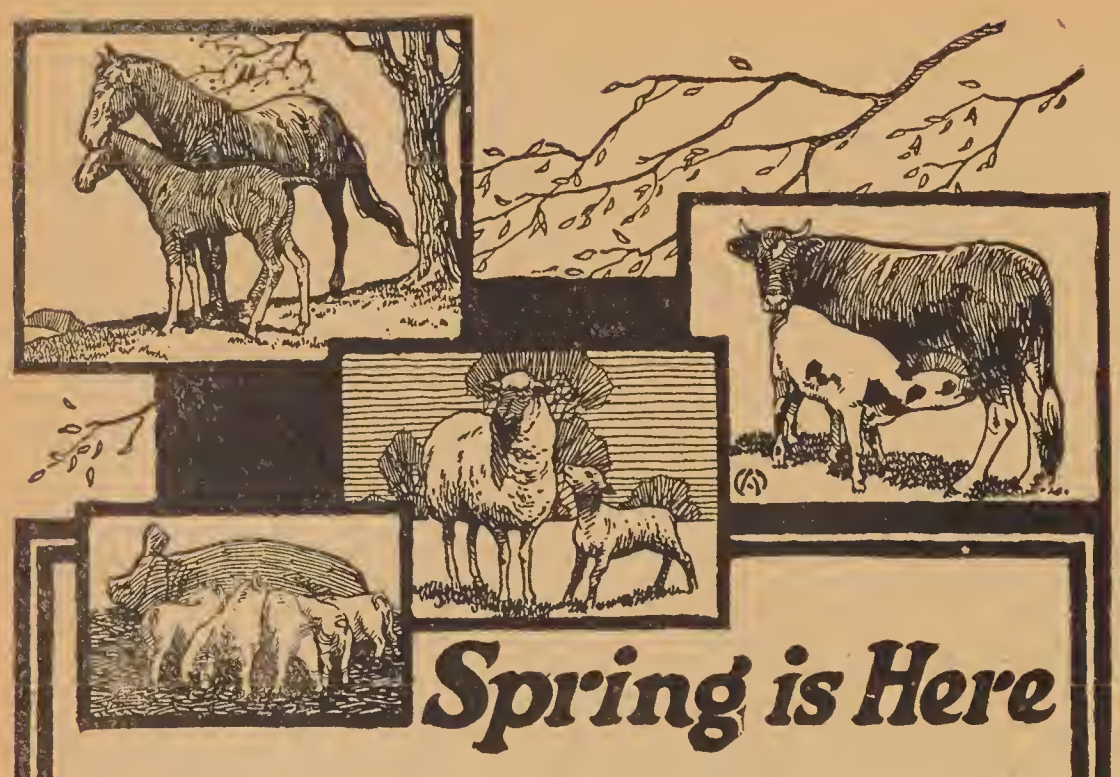

Spring is Here

All out-of-doors is filled with the bleat of the lamb, the bawl of the calf, the grunt of the pig, and the whinny of the colt.

Youth asserting itself everywhere!

Keep their bodies healthy, and stomachs full.

You can then count on good growth—quick development—and begin to cash in on them before the summer-end.

Let

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be your insurance policy

against disease, insurance of good appetite, good digestion. It keeps the worms away.

Then, there are the mothers:

Your COWS need it for its system-toning, bowel-cleansing, appetizing effects. Puts them in fine condition for calving.

Your BROOD SOWS will be relieved of constipation and put in fine fettle for farrowing.

Excellent for MARES in foal—and EWES at lambing time.

It makes for good appetite, and more milk to nourish the offspring.

Tell your dealer what stock you have. He has a package to suit. GUARANTEED.

I spent 30 years in perfecting this Tonic.
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Known Ingredients of Known Quality in Known Proportions

The rations are mixed according to formulas approved by the poultry feeding specialists at the colleges of agriculture in the territory served by the G. L. F.

Poultrymen appreciate the following points about G. L. F. Rations

1.—A larger variety of ingredients in each ration than is usually available in your locality.
2.—The quality of the ingredients and the pounds of each ingredient used are stated.
3.—Each ration is high in digestible nutrients and the fiber content is low.
4.—Dried milks are used and the pounds of animal proteins are high.

See your local G. L. F. Agent or write for booklet of the formulas

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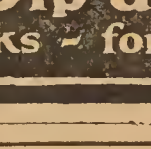

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East of the Rockies and allowed to points beyond.

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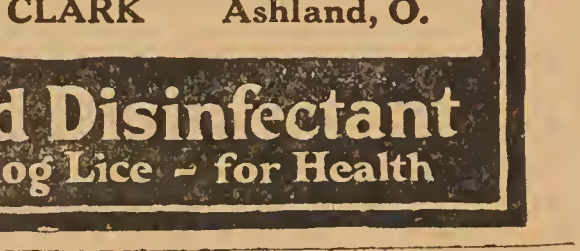

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Lowest prices on Ready-Made Fire-Proof Steel Garages. Set up any place. Send postal for Garage Book, showing styles.

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How I Raise Baby Chicks

Factors That Bear on the Success of the Business

By C. S. GREENE

ANOTHER year has passed, and with the opening of the spring season there arises in the heart of every real poultryman or woman a desire to see and own a flock of little chicks, and really there is no more beautiful sight on a farm than a flock of well-hatched, thrifty chicks as they scamper about the houses and yards or bask in the bright, warm rays of the glorious spring sunshine. Even on our general farms poultry is becoming more and more an important source of pleasure and profit when some one of the farmer's family takes an interest in the work keeping good, pure-bred stock and using modern methods of care and management.

In raising chicks, of course, the first consideration is to have good breeding stock and care for them in such a manner that the eggs will be fertile, and, with proper treatment, hatch strong, healthy chicks. We have found that feeding heavily of wet mash or green cut bone tends to lower the percentage of fertility. Too close confinement of the breeders is another common cause for infertility. Eggs laid by hens kept under artificial lights have hatched very unsatisfactory with us. So much so, that we would not hatch eggs from hens under lights except in extreme cases where no other eggs could be obtained, or when lights are used only a short time each morning or evening.

We do not say that it is impossible to obtain good fertile eggs from hens under lights, but we do say that on most farms where lights are used the fertility has been running very low.

After we have succeeded in getting good eggs, the incubation is a very simple operation, comparatively speaking, and the best advice we can give is to follow the incubator manufacturer's directions until some improvements can be suggested by experience.

Brooding an important Factor

A great deal depends upon the brooder when it comes to raising chicks successfully and the coal-heated colony brooder has been a great help to the commercial poultryman or anyone raising 300 or more chicks each season. It is the best method of brooding chicks that we have ever tried. A brooder should be selected which has automatic control of drafts by a sensitive thermostat, and there should be sufficient room in the stove for coal enough to last 24 hours at least. We prefer stoves with both top and bottom drafts regulated by the thermostats instead of top drafts only. This gives greater uniformity of heat with less danger of the fire going out in damp, muggy weather. No curtain is necessary around the hover if the brooder is placed in a colony house of the proper size. With the present shortage of coal fit to use in incubators and brooders, we may be compelled to use oil more and more for heating purposes.

Probably one of the greatest difficulties in raising chicks in brooders is their natural tendency to huddle or crowd when kept in fairly large-sized flocks. This danger is increased with the size of the flocks and must be avoided from the beginning, as the habit is easily acquired and very hard to control after a few nights, or even one night may be long enough to cause much damage to the chicks. The principal causes for crowding, are putting too many chicks in one brooder and insufficient heat. Many brooders are rated by the manufacturers to hold more chicks than they can accommodate successfully. As a rule, a medium-sized stove and hover will accommodate about 300 chicks. If the conditions are very favorable and the brooder is placed in a colony house at least 9 x 12 feet, as high as 400 chicks may be placed in it with good chances for success, but we do not approve of trying to raise any larger number in one brooder. This number must be decreased when the chicks are six weeks old or less, which is usually done by removing the broilers and fattening them up in separate quarters.

In cold weather, we start the brooders about two days before we put in the chicks, and heat them up to about 95 degrees F., with the thermometer near the edge of the hover and about two inches from the floor, as this is near the proper place for the chicks. Then, when the chicks are placed in the brooder, they will naturally furnish a little extra heat from their bodies, so the temperature will be about right.

Well grown, healthy, vigorous young stock means half the game in the poultry business

Sand on Brooder House Floor

When the fire is started we place about two or three bushels of dry sand or earth on the floor around the stove, and let it warm up and dry out with the brooder. When thoroughly dry and warm, this sand is spread over the floor at least half an inch thick and covered with cut straw, or hay, or hayseed, which usually collect on the barn floor, where hay is kept and fed to cattle. The thickness of this hay or straw which covers the sand on the floor is from one to two inches, as it is very important that enough should be used to thoroughly cover the sand and that it should extend out from the brooder as far as the chicks are allowed to run.

At first, a wire fence about a foot high should be placed around the brooder about 18 inches from the hover to keep the chicks from wandering too far from the source of heat until they learn where to go when they get cold. This fence should be moved back gradually until the chicks are from one to two weeks old, when it can be removed entirely. When chicks are properly trained from the start, there is much less trouble with them later than when allowed to stand around and peep and bunch up in corners for the lack of attention on the part of the attendant. I believe that fully one-third of the troubles which usually come to a person who raises chicks artificially are caused either directly or indirectly by chilling, so the proper temperature of the brooder is of the utmost importance.

A brooder need not be located in a very large high room where there are drafts of cold air, as it is almost impossible to control the temperature of a large room in cold weather. The ideal place for a coal-burning colony brooder and 300 chicks is in a colony house

CATTLE BREEDERS

ULTRA FARM GUERNSEYS

Each of our three recent advertisements in the Agriculturist has sold a Guernsey. Only three animals left. A 4-months-old heifer at $140; a bull ready for service at $125 and a handsome bull calf at $60. All three are rich in the blood of Ne Plus Ultra. Herd accredited. Write for pedigree and photographs.

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COOPERSTOWN, N. Y.

Holstein Cows For Sale

Two carloads of fancy, large grade Holsteins that are just fresh or due to freshen soon.

60 cows that are bred to freshen during February, March and April. All young, large and heavy producers.

A. F. SAUNDERS
Telephone 1476 CORTLAND, N. Y.

LARGE YORKSHIRE BOARS
FOR SALE

Well-grown for their age and vigorous. Ready for immediate service. Priced at farmers' prices.

HEART'S DELIGHT FARM, Chazy, N. Y.

HOLSTEINS

Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. J. A. LEACH, CORTLAND, N. Y.

HIGH-GRADE HOLSTEIN COWS

Fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.

Browncroft Farm McGRAW New York

BULL and HEIFER CALVES Attractive prices. The old reliable Orchard Grove herd milking shorthorn.

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REG. DUROCS — From prize-winning herd. Premiums from 10 fairs fall 1922. Orion Cherry King and Top Col. strain.
J. W. COX & SON, R. 5, NEW CASTLE, PA.

O. I. C's. VIEWMONT FARM, MAINVILLE, PA.
Now ready, choice fall pigs from School Master Callaway Edd and Wildwood blood lines. Pairs not related. Good enough to ship anywhere C. O. D.

Big Type Polands boars, sows and pigs for sale, good ones, low prices. Write me. G. S. HALL, FARMDALE, OHIO.

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REGISTERED O. I. C. AND CHESTER WHITE PIGS. E. P. ROGERS, WAYVILLE, N. Y.

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ONE can at $1.25 often sufficient. In powder form.

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A veterinary's compound for Horses, Cattle and Hogs. Heaves, Coughs, Distemper, Indigestion. Worm expeller. Conditioner. At dealers' or by parcel post.
THE NEWTON REMEDY CO., Toledo, Ohio

Killed 200 Rats At One Baiting

Dog, Ferret and Traps Failed—Amazing Virus Quickly Killed Them All.
Not a Poison

"I was over-run with rats," writes H. O. Stenfert of Redford, Mich. "Seemed to be several hundred of them. Dog, Ferret and Traps failed. Was discouraged. Tried Imperial Virus and was rid of them all in a short time. Have found rat skeletons, large and small, all over the farm.

"The year previous Rats killed 200 out of 300 baby chicks. Last year saved them all. Will send for 10 bottles for neighbors, and we will clean up the whole neighborhood."

Rats, Mice, Gophers, in fact all Rodents, greedily eat Imperial Virus on bait. Sets up burning fever. Pests die outside hunting air and water. Harmless to humans, poultry, pets, stock, etc. Economical to use. Indorsed by Farm Bureau Experts and large, nationally known institutions everywhere.

You Can Get Yours Free

SEND NO MONEY. Write today to Imperial Laboratories, Dept. 1003, Kansas City, Mo., and they will mail you two regular $1.00 bottles of Imperial Virus (double strength). Pay postman only $1.00 and few cents postage on arrival. Use one yourself and sell the other to a neighbor, thus getting yours free. Readers risk no money, as Imperial Laboratories are fully responsible and will refund your $1.00 on request any time within 30 days.

about 9 x 12 ft. and placed so that when the chicks are let out on warm days they will have a nice, clean grass range where no other chicks or fowls can interfere with their liberty and happiness.

Feeding the Third Factor

Most people seem to think that the feed is the principal part in raising young chicks, but it is really only one of three important factors—good chicks, comfortable quarters and proper feed—all three being of practically equal importance. A few years ago we were taught to fix up all sorts of mixtures as first feeds for young chicks, such as custard and johnny cake and boiled eggs and cracker and bread crumbs chopped up, and many things which make extra work just at a season of the year when poultrymen are busy and must economize time as much as possible. All of these nicknacks have therefore been discontinued, and we use a very simple ration which contains all the ingredients and nutrients which young chicks require for their proper growth and development, and which, for the most part, can be compounded and mixed in quantities so as to be easily accessible when required.

The chicks are left in the incubator until the morning of the 22d day, when they are removed to the brooder. No food is given until the chicks are about 48 hours old, or until they show signs of being real hungry. This is usually the afternoon of the same day that they are placed in the brooder, as many of the chicks are hatched on the 20th day and are therefore ready for their rations at this time. The first feed is simply oat flakes, such as are commonly sold for table use. Only one very light feed is given on the first day, and this is sprinkled on a shingle or paper where the chicks can get it easily, together with a mixture of fine grit, oyster shells and charcoal.

Milk Vital in the Ration

Milk in some form should be given the chicks as soon as they are placed in the brooders. We prefer skimmed milk direct from the separator and fed sweet in regular water fountains so the chicks cannot get wet. If sweet milk is not available, moderately sour milk is the next best, but whichever is used at first should be continued instead of changing from one to the other, and the fountains should be washed and scalded every day.

For dry mash, we use a good chick-starting feed with buttermilk. There are several good commercial mixtures on the market at the present time. This is kept before the chicks in small hoppers or troughs until they are six or eight weeks old, when the mash is gradually changed to the following mixture: 200 lbs. wheat bran, 100 lbs. white wheat middlings, 100 lbs. corn meal, 100 lbs. oat flake, ground fine, 25 lbs. fine beef scrap, 25 lbs. dried buttermilk, 25 lbs. bone meal, 10 lbs. fine charcoal. This will make a suitable mash for the chicks until they are four months old or more and ready to take nearly the same rations as the laying stock.

We start feeding fine scratch feed about the end of the third day, and no definite rule is followed for this except to feed just enough to keep the chicks fairly busy most of the time during the day, while the heaviest feed is always given at night about an hour before dark. This scratch feed is the common commercial mixture of finely cracked grains. Where large quantities are used it is sometimes desirable to make a home-made mixture of equal parts cracked wheat, pinhead oat meal and finely cracked corn. This mixture is fed twice or three times a day until the chicks are old enough to eat whole wheat and larger cracked corn, when they are changed very gradually to an intermediate scratch feed.

Green feed should be supplied regularly. Nothing is better than a clover or alfalfa range in summer, but in cold weather we have found nothing better than sprouted oats, beginning to feed them the sixth or seventh day. During warm weather, some shade is necessary, and for this purpose a cornfield near the colony houses furnishes almost ideal conditions. White Leghorn chicks raised by this method should be ready for broilers at nine weeks of age, averaging about three pounds per pair, while the pullets should start laying at about five months of age and return a good profit on the investment.

DE LAVAL CREAM SEPARATOR PRICES

A word about De Laval Cream Separator prices to prospective 1923 purchasers is pertinent at this time.

De Laval prices were reduced last year to practically the pre-war level, allowing for increased capacity and other improvements made meanwhile.

This reduction was made in anticipation of a further reduction in labor and material costs. The reverse has happened. Labor and material costs are going up rather than down.

If they continue to do so De Laval prices will have to be advanced. They are now too low. The economies possible through greatly increased production can alone permit of their remaining so.

In any event, De Laval prices cannot be reduced. They may easily have to be advanced at any time. The safe thing to do is to buy now and take no chances.

This is the more so by reason of the fact that 1923 De Laval machines are even better than ever before, that dairying was never more profitable, and that no one having use for a cream separator could ever less afford to be without the best or to continue the use of an inferior or half-worn-out machine.

Why not see your local De Laval agent at once or write us direct at the nearest address given below?

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NEW YORK 165 Broadway
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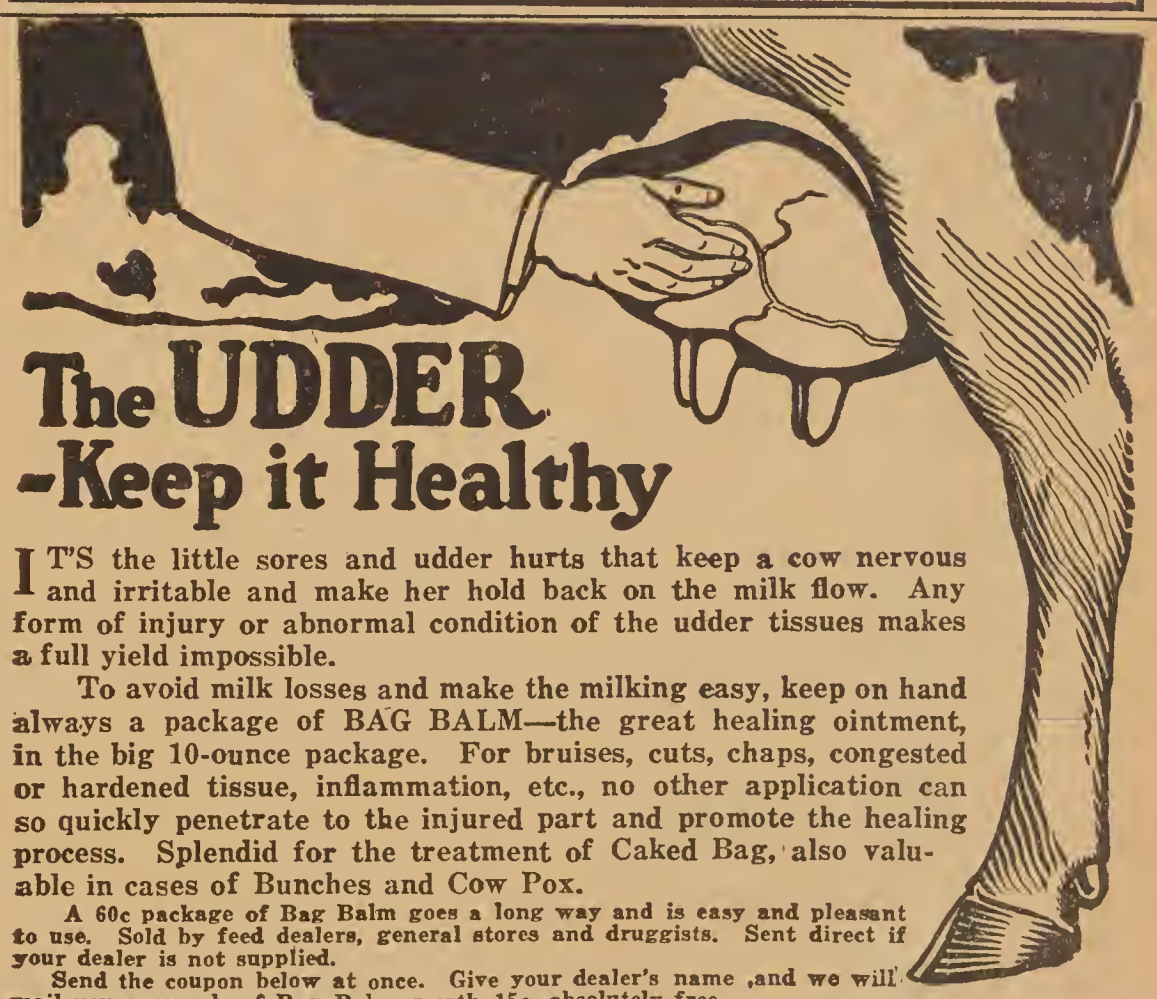

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IT'S the little sores and udder hurts that keep a cow nervous and irritable and make her hold back on the milk flow. Any form of injury or abnormal condition of the udder tissues makes a full yield impossible.

To avoid milk losses and make the milking easy, keep on hand always a package of BAG BALM—the great healing ointment, in the big 10-ounce package. For bruises, cuts, chaps, congested or hardened tissue, inflammation, etc., no other application can so quickly penetrate to the injured part and promote the healing process. Splendid for the treatment of Caked Bag, also valuable in cases of Bunches and Cow Pox.

A 60c package of Bag Balm goes a long way and is easy and pleasant to use. Sold by feed dealers, general stores and druggists. Sent direct if your dealer is not supplied.

Send the coupon below at once. Give your dealer's name and we will mail you a sample of Bag Balm, worth 15c, absolutely free.

Ten Ounce Package 60c

DAIRY ASSOCIATION CO.,
Dept. N Lyndonville, Vt.

Dairy Asso. Co., Lyndonville, Vt: I will give Bag Balm a trial if you will mail me free sample.
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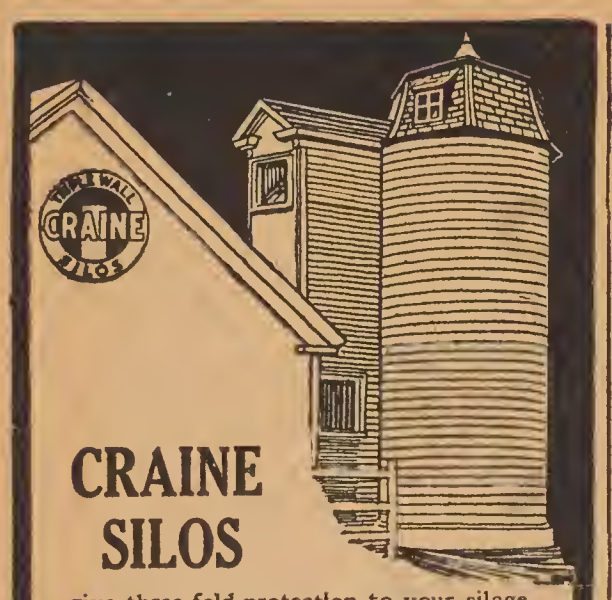
FREE SAMPLE



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give three-fold protection to your silage. They keep warmth and juices in and keep cold and weather out.

Every square inch of a Craine Silo is protected against stress and strain in any direction.

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Send for illustrated catalog.

Any old stave, iron hooped silo can be rebuilt into a Craine 3-wall Silo at about half the cost of a new one. Catalog shows how.

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BE sure your silo is air tight. The Harder Patent Spline Dowel and square tongue and grooved staves produce a tight joint that absolutely excludes the air. This combination makes a rigid silo that cannot shear or lean.

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Describes cause, effects and treatment; tells how farmers in all parts of U. S. are stopping the ravages of this costly malady.

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League Price for March

Farm News From New York and New Jersey

THE Dairymen's League Cooperative Association, Inc., has announced the following prices for the month of March, on the basic butter fat test of 3 per cent, in the 201-210 mile freight zone from New York City.

Class 1, for fluid consumption, $2.80.

Class 2, for cream or ice cream, $2.50.

Class 3-A, milk used chiefly in the manufacture of evaporated, condensed and powdered milk, a differential of 59 cents per hundred above the price paid for milk going into the manufacture of butter (in Class 4). For Class 3-B milk, used chiefly in the manufacture of hard cheese, a 40 per cent differential was voted above butter prices.

Class 4, milk used chiefly in the manufacture of butter and American cheese, prices to be determined by New York market quotations on these commodities.

These March prices are the same as February prices, except that there is a reduction of 10 cents per hundred on Class 1 milk. The February price was $2.90 a hundred.

WESTERN NEW YORK NOTES

ALVAH H. PULVER

After a series of years replete with problems, the canneries of Western New York are preparing for a season when it is felt that more certainty will prevail in all the ramifications of the industry. Sugar and fuel shortages in the past have given much trouble, not to mention labor scarcity and the irregular supply of tins from time to time. Much of this bother is now in the past and while in some direction a sugar shortage is being talked about as one more thorn this year, the canners as a whole do not anticipate any great difficulty in getting ample supplies. The year opens auspiciously for the factories and considerable expansion is believed to be in store for various plants.

Definite announcement has been made that a large plant will be erected at Knowlesville, the project being fostered under the direction of the New York Canning Crops Co-operative Association. The Orleans county unit, including the associations at Medina, Albion and Knowlesville, has subscribed to enough stock to guarantee the success of the project. It is proposed to put up a $75,000 building with additions to come later. All kinds of vegetables and fruits will be processed.

Potato Situation Bad in Steuben County

Growers of potatoes in Steuben county see little or no encouragement in the market situation with prevailing prices around 40 cents per bushel and dealers only luke warm at this figure. Many growers who put their crop in storage were certain of a sustantial advance in the market during the winter. A rot has now developed, many growers losing heavily on the stored tubers. Potatoes that were dug early in the season have shown the most decay, and it is believed that they were infected when stored, and their blight later spread to the sound ones.

The government weather station at Ithaca has established a cooperative weather station at Sodus, placing it in charge of the writer. Daily records of temperature with maximum, minimum and mean records for the month and the precipitation from day to day will be recorded. From records of other stations in Western New York it was shown last year that considerably more precipitation was recorded in this section than in the extreme western counties of the state with a resultant heavier development of fungus troubles in Wayne and other counties than was experienced in Orleans and Niagara counties.

Nurserymen Hold Annual Meeting

At the annual meeting of the New York State Nurserymen's Association, held in Rochester, officers were elected for the year as follows: President, W. H. Masten, Newark; vice presidents, William Pitkin, F. T. Burke, Rochester; R. T. Brown, Queens; Frank Hartman, Dansville and Paul V. Fortmiller, Newark; secretary and treasurer, Chas. J. Maloy, Rochester; executive committee: Chas. H. Perkins, Newark; Horace Hooker and William Pitkin, Rochester, and John P. Rice, Geneva.

Chas. S. Wilson, prominent fruit grower of Hall, Monroe County, has been appointed to succeed the late J. B. Pease as President of the New York State Horticultural Society.

John D. Miller, Vice President of the Dairymen's League Cooperative Association, was elected President of the National Milk Producers' Association, at their recent meeting held in Washington, D. C. Mr. Miller succeeds Milo D. Campbell who resigned to accept President Harding's appointment to the Federal Reserve Board.

NEW YORK COUNTY NOTES

Ontario Co.—We are having a real old-fashioned winter. On January 30 the temperature hit 8 degrees below zero. All roads were filled with snow, making it hard for the mail man. There is an effort being made to open the roads for autos, which will be a hard thing to do. Some have been talking of widening sleighs to the same width as wagons, so that we could have sleighing and wheeling at the same time. Hens have been working too hard lately and have brought the prices down. Some folks are selling potatoes at 50c. Stock of all kinds is doing well. The health of folks in our section is generally good.—C. T. B.

Montgomery Co.—The weather thus far has nearly equaled that of '88. Farmers are making every effort to harvest ice. Thus far the quality has been poor owing to the depth of the snow. Very little hay is moving to market. The demand is very light. Milk prices are very good, but feeds are still high. Dairy butter to customers is 50c a pound. Beef has been plentiful at from 9 to 12c per pound by the quarter. Farmers have started to place their orders for grass seeds and fertilizers. Farm Bureau meetings held throughout the county are generally well attended.—G. P. V.

Dutchess Co.—Farmers are putting in 12 to 14-inch ice. Roads are being kept open for autos. Many farmers are killing their own beef. All available help is cutting cordwood, for which there is ready sale. It is practically impossible to get coal. Farmers' institutes have been very well attended.—H. J. H.

PROMINENT HOLSTEIN BREEDER DIES

John J. Walrath, East Springfield, N. Y., the well-known Holstein breeder and owner of the First Accredited Herd in Otsego County, died February 16. Mr. Walrath was a man of splendid character and a leader in his community.

TEACHERS' TENURE OF OFFICE ACT UP FOR HEARING IN NEW JERSEY

The Senate hearing on its bill No. 129, which would repeal the so-called Teachers' Tenure of Office Act, brought out a large delegation of farmers from central and southern New Jersey last week in support of the repeal. According to the law as it now stands, any teacher who has taught three successive years in any one place is exempt from discharge without cause. This means that a teacher must be brought up on charges to be dismissed, a method of removal often impossible and very unpopular in rural communities where the teacher's home may be in the community.

In rural schools, where funds are seldom available to attract the best teachers, it has been felt that the teachers' tenure of office prevents the efficient operation of the local school boards. The farm groups were represented by delegations from Monmouth, Gloucester, Hunterdon, Camden, Burlington and Mercer counties. The chief opposition came from the State Teachers' Association and some of the north-

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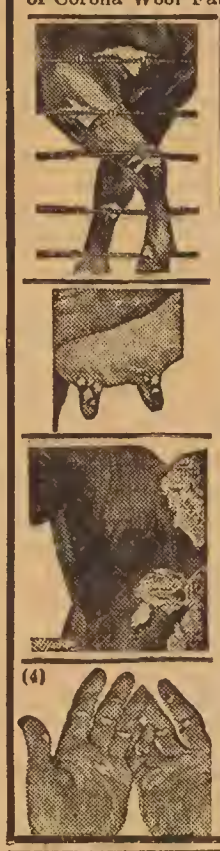

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Many a valuable animal has been saved disfiguring blemishes by Corona Wool Fat. Corona is made from oil extracted from the wool of sheep—it is very penetrating—the only preparation that will penetrate a horse's hoof—yet it will not burn or blister—very soothing and healing.

Keep in Home and Barn

Keep a can of Corona in the home and in the barn as a simple, efficient "first aid" remedy for all cuts and wounds of man or beast.

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Send name and address today and get sample Box Free. This free sample will prove to you that you can't afford to be without CORONA. For sale by Druggists, Blacksmiths, and harness dealers everywhere.

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GREEN MOUNTAIN SILOS

$24.95 Upward ***American*** **CREAM SEPARATOR**

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines. Get our plan of easy

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and handsome free catalog. Whether dairy is large or small, write today.

AMERICAN SEPARATOR CO.
Box 7052 Bainbridge, N. Y.

Natural Leaf Tobacco Mild or Strong. Extra fine smoking 5 lbs. $1.25; 10, $2.00; 20, $3.60. PIPE FREE; Hand-Picked Chewing, 5 lbs. $1.50; 10, $2.50.
TOBACCO GROWERS' UNION, Murray, Ky.

eastern counties. A substitute measure has now been introduced which would make the tenure of office effective after five years.

Forest Fire Problems Discussed

At the recent sectional Inter-state Forest Fire Conference held in Trenton, N. J., State Forester C. P. Wilbur said that New Jersey loses $40,000,000 annually through forest fires. This figure includes the loss through idleness of land, the cost of freight on imported timber and actual destruction of timber growth. The present estimated value of New Jersey forests is placed at $25,000,000, whereas Mr. Wilbur claims the capitalized value would be $200,000,000 in the forests were adequately protected.

The State Department of Conservation and Development is now operating on an appropriation of $35,000. A sum of $70,000 was asked for the coming year, which, if granted, the department estimates, would be an amount large enough to give protection to every section of the State. The farmers of Southern New Jersey are extremely anxious to get more fire protection for the cut-over lands adjacent to their farms.

Practical Farm Courses at College

Late winter and spring bee problems were being studied this week by a small group of beekeepers who gathered for an intensive course in bee husbandry at the New Jersey State College of Agriculture. Lectures and laboratory work in charge of Professor Hutson of the State Experiment Station, and E. G. Carr, bee specialist of the State Department of Agriculture, were scheduled in conjunction with the entomological work offered by other members of the college staff. Considerable interest is centering in the one-week tractor course at be held at the college farms at New Brunswick, N. J., during the week of March 5 to 10. Practical study of such problems as carburetors, aid cleaners, ignition, magnetos, tractor hitches, field operation and tractor selection are to be considered. The course is in charge of Edward R. Gross, Professor of Rural Engineering. The admission fee is $3; registration is limited to 20 men.

Round about the State

Growers throughout the southern counties still hold large stocks of sweet potatoes, for the most part good, sound "sweets" which are well graded and carefully inspected before they are marketed. The State Department of Agriculture recently inaugurated a sweet potato week to boost consumption. Retail prices, however, have not been high enough to encourage the rapid movement of sweet potatoes to market. Nine New Jersey cities report prices around $2 per basket. Wholesale prices in Philadelphia, New York and Northern New Jersey cities have ruled from 50 to 60 cents a basket, with 90 cents practically the highest on very fancy stock, graded and inspected under supervision of State representatives.

Burlington Co.—Out of 1,400 tuberculin tests made by the State on dairy cattle in this county, only 15 per cent of the animals have been found infected, according to figures reported at the recent meeting of the Burlington County Guernsey Breeders' Association. The following make up the list of officers of the Association: President, Lyman A. Horner of New Liston; Vice-president, Walter E. Wright of Columbus; Secretary and Treasurer, Joseph E. Evans of Marlton. The present organization is the outgrowth of a Guernsey Bull Association started in the county 25 years ago.

Gloucester Co.—Truck growers and farmers around Swedesboro have united with some of the other business groups to bring down an extension of the Reading Railroad from Mullica Hill. The intensive shipping of tomatoes, sweet potatoes, fruits and other farm products from Swedesboro creates the need for wider transportation facilities. New railroad contracts will give broader marketing contracts to the Gloucester County farmers, who maintain that their business is sufficient to justify their request.

Gasoline is lots cheaper than elbow grease when it comes to pumping the water from a deep well.

UNADILLA SILOS

THE gambrel roof of Unadilla Silos insures a full silo when silage settles.

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Silage settles from 15 to 20 per cent. You pay for a certain capacity silo. You get it with a Unadilla Silo and a Unadilla Gambrel Roof.

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MAKES HIS OWN WORM DESTROYER

Geo. E. Helser, Breeder of Merino Sheep, Finds a Sure Way to Keep Sheep and Lambs Free From Worms and in Thriving Condition

"Like every breeder and farmer who keeps sheep, I have had no end of trouble and losses from stomach and intestinal worms. I learned that The Ivo-San Laboratory of Cleveland, Ohio, had been conducting some extensive investigations and tests in connection with stomach and intestinal worms in all livestock, particularly sheep and hogs.

"I wrote to them to find out what results they had obtained and in reply they said they had discovered what seemed to be the most efficient and satisfactory remedy to destroy worms in livestock, that has yet been produced. Furthermore, their preparation was in concentrated form so farmers could mix their own remedy. They offered to send me a 15-lb. package of this new discovery, telling me how I could make my own worm destroyer and save over half of the usual cost of such preparations, and that if it did not do the work, the small charge they made for it would be refunded.

"I sent for a 15-lb. package of their Wormix. It did the work. Later I ordered six packages more.

"I keep it before my lambs and sheep constantly—let them have free access to it and as a result I haven't a lamb or sheep that shows a trace or sign of stomach worms. I never had lambs do so well or look so rugged and thrifty. Wormix is a real worm destroyer and preventive too.

"If sheep owners would keep it before their sheep and lambs constantly, the worm problem would disappear from their flocks entirely, just as it has from mine, I am sure."

Wormix, as Mr. Helser of Lafayette, Ohio, stated, is a worm destroyer in concentrated form. You buy it at a small cost and mix it with ordinary salt. Thus you do not pay drug prices for salt or other fillers. You save over half the usual cost of such preparations and you get a worm destroyer far ahead of anything yet discovered. It also contains bone growing minerals, is a tonic and digestive and will prove the best thing you ever used on lambs, sheep, hogs, horses and cattle for ridding them of worms—keeping them free from these costly pests—keeping all your stock in healthy, thriftly, growing condition. No trouble to feed; no starving, dosing or drenching. Animals take it readily and doctor themselves.

WORMIX is sent direct to you, charges prepaid.
One 15-lb. package Wormix — enough to make 100 pounds $3.50
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(West of the Rocky Mountains, 6c a lb. more.)

You take no risk — if Wormix does not prove satisfactory, your money will be refunded. Fill out coupon NOW.

The Ivo-San Laboratory, 223 Prospect Ave., Cleveland, Ohio

Please find enclosed.....for.....packages of your WORMIX, to be sent all shipping charges prepaid on your "money-back" guarantee. Also send your easy directions for mixing and feeding.

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KENTUCKY NATURAL LEAF TOBACCO
Chewing, 5 pounds, $1.75; 10 pounds, $3.00; 20 pounds, $5.25. Smoking, 5 pounds, $1.25; 10 pounds, $2.00. Send no money. Pay when received. FARMERS' CO-OPERATIVE TOBACCO UNION, Paducah, Ky.

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Markets advancing. We expect much higher prices later. We can save you money if you Buy Now. We bought early, big stocks on lower markets and are now selling at a big discount under present prices. Don't buy Field seeds of any kind until you see our samples and prices. We specialize on Guaranteed Quality Tested Clover, Timothy, Alfalfa, Sweet Clover, and Alsike, sold subject to your approval and government test. Write today for our Samples and Big Seed Guide all FREE.
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More milk from your cows—better physical and health condition of the herd are the rewards that come to the dairyman or farmer who feeds Sugared Schumacher Feed.

Sugared Schumacher is essentially a Maintenance ration. It supplies the cow with an abundance of bodily nutrition—nourishment—and thus fits her to produce MORE MILK. It is giving unusual satisfaction to thousands of critical feeders. Feed

(D-1)

SUGARED SCHUMACHER FEED

as the base or maintenance part of your ration along with cottonseed meal, gluten, Big "Q" or other concentrates and you will see a marked improvement in milk yield and general health condition of your herd. Composed of Corn, Oats, Barley, Wheat, finely ground and sweetened with Cane Molasses, Sugared Schumacher is highly nutritious and extremely palatable. It's sweet—cows like it—do better on it. Your dealer can supply you.

Mail Coupon For Free Book "The Dairy Herd"

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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

JERSEY BLACK GIANTS — Choice laying pullets, $6; Cockerels, $8; pairs, $13; trios $17; pens $25. Big black-eyed beauties from prize-winning stock. Get started with this wonder fowl now. Order from this "ad," cash or C. O. D. L. J. WILLIS, Gouverneur, N. Y.

REAL RED REDS, Single Comb, pure bred, deep, rich, red, vigorous Cockerels and Pullets; three, four, five dollars; satisfied customers. MEADOWBROOK FARM, Route 3, Box 210, Lancaster, Pa.

SPLENDID COCKERELS, also eggs from best strains. Barred rocks, single comb reds, white Wyandottes, light Brahmas, white Leghorns. CHESBRO FARMS, North Chill, N. Y.

LONG'S STURDY CHICKS—10c. up. Reds, Rocks, White Leghorns and Mixed Chicks. Prepaid live arrival guaranteed. Circular free. TURKEY RIDGE HATCHERY, Millerstown, Pa.

PURE-BRED RINGLET BARRED PLYMOUTH ROCKS, E. B. Thompson's Strain; cockerels and pullets for sale. GEORGE DELBRIDGE, Maynard, Ohio.

STOCK EGGS—Chicks White Leghorns, Reds, Black Minorcas, White China Geese, prices reasonable. BROOKSIDE FARM, Keymar, Md.

MAMMOTH TOULOUSE GANDERS, $7 each, two old geese $6 each. Also Barred Rock cockerels. CHARLES E. HALLOCK, Mattituck, N. Y.

BABY CHICKS — Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

S. C. BROWN LEGHORNS exclusively, booking orders for chicks, 15 years with one variety. L. K. DANIELS, Hammond, N. Y.

WHITE WYANDOTTE COCKERELS. Mammouth Pekin ducks. Pearl Guinea. LAURA DECKER, Stanfordville, N. Y.

TORMOHLEN FAMOUS EVERLAY Leghorn Cockerels; eggs for hatching; day-old chicks. SUNNYSIDE FARM, Emporium, Pa.

MONEY SAVED — Free feed. Low prices. Baby chicks. Eggs, brooders. Supplies. EMPIRE HATCHERY, Seward, N. Y.

BARRED ROCK COCKERELS—From high record-laying strain, "Storrs Contest." RIVERSIDE FARM, Petersburg, N. Y.

TOULOUSE GEESE, Rouen Ducks, Grey Call Ducks, Pearl Guineas. CRANE BROOK FARM, Port Byron, N. Y.

COCKERELS—Single Comb Black Minorcas. From selected stock. $2.25 each. ROY VAN DYKE, Freeport, Pa.

LARGE IMPERIAL EMDEN GANDERS—One and two years old. Cheap. MRS. A. FELOCK, Newfield, N. Y.

S. C. WHITE ORPINGTON COCKERELS, pullets, hatching eggs. MARTHA L. TAYLOR, Factoryville, Pa.

WHITE AND COLORED Muscovy Ducks. Drakes $4. Trios $10. M. V. CALDWELL, Lisbon, Ohio.

WHITE LEGHORN QUALITY CHICKS. Superior layers. Write NELSON'S, Grove City, Pa.

ANCONAS — Shepard strain pullets and cockerels, $1.75. JOHN GLICK, Bird-in-Hand, Pa.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

TOULOUSE GANDERS AND B. R. COCKERELS. ROY HILTS, Gouverneur, N. Y.

FOR SALE—Pure-bred Buff Rock Cockerels, $2 each. C. JESSOP, Rock Stream, N. Y.

BUFF ROCK COCKERELS — EDGEWOOD FARM, Ballston Lake, N. Y.

TURKEYS

TURKEYS—Hens and Toms—with size and quality. Pairs and trios no akin. Mammoth Bronze, Bourbon Red, Narragansett, White Holland. Write, WAL[illegible] BROS., Powhatan Point, Ohio.

DOGS AND PET STOCK

ENGLISH AND WELSH SHEPHERDS. Bred from natural herding instinct from Sires and Dams that work for a living, 4 month's old pups working with old dogs, pups can be trained in 6 months; now is the time to buy. GEORGE BOORMAN, Marathon, N. Y.

AIREDALE PUPPIES: From pure bred, very intelligent stock. Females, $6. Shipped on approval. WM. W. KETCH, Cohocton, N. Y.

PEDIGREED COLLIE PUPS—Bred Berkshire Sows, White Leghorn Yearlings. EL BRITON FARM, R. 1. Hudson, N. Y.

COLLIE, three years old, good guard and cattle driver. Twenty dollars. R. A. HAND, R. D. 3, Morgantown, W. Va.

BEAGLE PUPS, 3 months old, farm raised, from hunters. H. A. HAIGHT, Barker, N. Y.

COLLIES, beautiful females, sable and tricolor. JOHN D. SMITH, Walton, N. Y.

SEEDS AND NURSERY STOCKS

BERRY, VEGETABLE, AND FLOWER PLANTS — Strawberry plants, earliest, latest, largest, most productive and everbearing varieties; raspberry, blackberry, dewberry, loganberry, gooseberry, currant, grape plants; asparagus, rhubarb, horseradish, hop, sage, mint roots; cabbage, cauliflower, celery, tomato, sweet potato, beet, onion, lettuce, egg plant, pepper, parsley plants; hollyhock, gallardia, delphinium, canterbury bells, foxglove, poppy, sweet william, phlox and other perennial flower plants; aster, pansy, salvia, snapdragon, verbena, zinnia, strawflower, begonia, geranium, and other annual flower plants; dahlia, canna, gladiolus, peony, iris bulbs; roses, shrubs. Catalogue free. HARRY D. SQUIRES, Hampton Bays, N. Y.

STRAWBERRY — Black Raspberry Plants. Wait! Don't order your plants until you get our prepaid prices. We can save you money and furnish the quality. F. G. MANGUS, Pulaski, N. Y.

DAHLIAS—$1.50 per dozen, labeled; $2 per 20, not labeled. Decorative, peony, show cactus. Circular; also white Eskimo puppies, $15 and $20. MRS. HOWARD HOLSINGER, Denton, Md.

RED RASBERRY AND BLACKBERRY PLANTS. Hardy Northern grown, booking orders now for spring delivery, write for prices. J. T. EAGAN, Lebanon, N. Y.

DAHLIA BULBS—Beautiful varieties named, twenty cents each, double hollyhock seed, choice, red, white and pink, packet ten cents. J. CALLENDER, Skaneateles, N. Y.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

FOR SALE—Superior Strain, Short Stemmed Home Grown Danish Cabbage Seed. From Selected Heads. C. J. STAFFORD, Cortland, N. Y.

BULBS—Dahlias. Ten different colors, postpaid $1.00. Winners State Fair and New York shows. WILFRED ANDERSON, Millbrook, N. Y.

CERTIFIED SEED POTATOES—Sir Walter Raleigh and Russets. ERWIN A. WEEKS, Locke, N. Y.

BEES

HONEY—Purity guaranteed, box of four ten pound pails, here, clover-basswood, $5.60; buckwheat $4.80; 60 pound cans $7.80 and $6.30. Ten pounds prepaid, 3rd. zone, $2.05; buckwheat $1.80. WILCOX APIARIES, Odessa, N. Y.

PURE EXTRACTED HONEY—Insured to 3d postal zone; 5-lb. pail clover, $1.10; 10-lb. pail, $2; 60-lb. can, $8.50; buckwheat, $1; $1.80 and $7.50. N. L. STEVENS, Venice Center, N. Y.

HONEY—Guaranteed finest quality. Clover, 5 lbs., $1.10; 10 lbs., $2. Buckwheat, 5 lbs., $1; 10 lbs., $1.75; prepaid. M. BALLARD, North Branch, N. Y.

PURE HONEY—Circular free. ROSCOE F. WIXSON, Dept. A. Dundee, New York.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

REAL ESTATE

ONE-ACRE—Village chicken farm; good 9-room house with bath, gas, furniture; farm equipments; automobile; 125 R. I. pullets; new barn; other buildings. $2,700, terms. Electricity in front of house. If you care to come, this advertisement will pay 5 per cent. Reserve the right to sell to other parties. ROBERT R. RYERSON, Cedarville, N. J.

DAIRY AND GRAPE FARM—Buildings and timber worth more than price of farm. $9,500 98½ acres; 2 miles village, 3 miles Lake Chautauqua; school 15 rods. Sell stock and equipment if wanted. Owner. JAY DEARING, Mayville, N. Y.

83-ACRE TRACTOR FARM FOR SALE—40 alfalfa; 24 fall plowed; plenty of water; fruit; new house; good barns; 1 mile to high school; 50 minutes to Syracuse over State road. GEORGE A. HILL, Owner, Chittenango, N. Y.

FOR SALE—100-acre farm; on good road, five miles from Schenectady; 8-room house, barns, granary, hog house, stock, crops, equipment; price, $6,000, part down. C. M. FREEMAN, R. D. 3, Schenectady, N. Y.

$100 DOWN and possession; balance $800; 61-acre farm, dwelling, barn, fruit trees, spring water, good soil, timber. MRS. C. A. MOON, 654 N. 46th Street, Phila., Pa.

FARM FOR SALE—46½ acres, all necessary buildings, rolling land. Near good markets and creamery, $6,500. ALFRED DARTE, Collegeville, Pennsylvania.

FOR SALE — 18-acre farm, cows, pigs, chickens, horse, machinery, etc.; price $3,800; bargain. Address owner, JOSEPH BRAZAS, Perkiomenville, Pa.

WANTED—Rent small state road farm, privilege buying suitable to establish garage business, full particulars. E. L. VAN AKEN, Ballston Spa, N. Y.

FOR SALE—Reasonable, poultry farm, one and half miles from Millville, well equipped. Write HENRY REHMANN, Broad Street, Millville, N. J.

FARM FOR SALE — 100 acres; fully equipped; 30 cows, 4 horses, feed. Village property. $14,500. WILL KNAPP, Middleburgh, N. Y.

FARM FOR SALE—230 acres; modern barns; $3,500; work off $2,000 in winter months; plenty of time. CHAS. HURLBURT, Gelbertsville, N. Y.

FARM FOR SALE — 165 acres; 22 cows, team; good location; modern improvement; electric lights. WILLIAM WOEHRLE, Union Grove, N. Y.

FOR SALE — 96-acre farm. Plenty buildings; black and clay land; well located. Price right. Box 100, American Agriculturist, New York City.

FOR SALE — Finest dairy farm in Buck's County; 140 acres; high state of cultivation; 40 acres of meadow. WILLIAM DAVIS, Rushland, Pa.

FOR SALE—Farm, 67 acres, sandy loam, potato-growing soil, basement barn, silo, orchard, HUGH SWANEY, Route 4, Meadville, Pa.

FARM FOR SALE—167 acres; cows, horses, all farming tools. Good location. Price, $8,000 for all. Box 101, American Agriculturist, New York City.

48-ACRE FARM FOR SALE—Plenty apples, cherry, pears and raspberries; also 3 springs. Bargain. JOHN MARUT, Pattenburg, N. J.

FARM 105 ACRES for sale on good roads. For description, price, location, address D. T. RUFFNER, Owner, Phalanx Station, Ohio.

DAIRY FARM FOR SALE—185 acres; 35 dairy cows and young stock; good location. Owner, F. BLAZEZENIOS, Boonville, N. Y.

55 ACRES—Improved farm, house, barn, orchard, water and timber. Write owner, GEO. M. LYON, Wyalusing, Bradford Co., Pa.

FOR SALE—Farm 222 acres; excellent location; fine milk market; good buildings; plenty water. Box 94, Holland Patent, N. Y.

FARM FOR SALE—115 acres; fertile soil; good building; running water; fruit plentiful. F. J. HERNIGLE, Fultonville, N. Y.

275 ACRES can be bought, less than $60 per acre. Fine buildings. On State road. VELEY, Stillwater, Tuscarawas Co., Ohio.

FARM FOR SALE—260 acres; tillable land; two miles from Erie R. R. station. JAMES SEELY, Chester, N. Y.

REAL ESTATE

FARM FOR SALE—112 acres; 30 head of stock and all tools; excellent location. R. B. IVER, Ashland, N. Y.

FOR SALE—Farm of 90 acres near Baltimore. M. C. CORCORAN, Glenarm, Md.

RAW FURS AND TRAPPERY

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

CATTLE

MILKING—shorthorns, splendid young bull. Breeding age. WM. E. SUTTON, Windham, N. Y.

INCUBATOR

FOR SALE — Candee Monmouth Incubator, 2,400 egg capacity; used two years; perfect condition; $175.00 crated f. o. b. station. H. C. LOCKWOOD, Butler, N. J.

FEMALE HELP WANTED

LADIES WANTED everywhere who write plainly or use typewriter; other opportunities. WORKERS' SERVICE CO., Dep't. 88 Jacksonville, Florida.

MALE HELP WANTED

EXPERIENCED DAIRYMAN to care for dairy farm. All modern improvements. ORCHARD HOME FARM, R. D., Olyphant, Pa.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

AGENTS—Men and women can make good money by selling articles used in every house, full or part time, write OHIO SALES & MFG. CO., 1459 W. 6th, Cleveland, O.

MISCELLANEOUS

WILL SELL my Geiser saw mill 30-ft. carriage, with top saw, log turner, saw-dust elevator; also 12-25 Mogul tractor; all in good shape; at a bargain. LEWIS SHAFER, Arlington, N. Y.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

WANTED—Cancelled stamp's, look through your garret, etc., if on envelope send envelope and all. Cash Paid. FRED G. EYCHNER, R No. 2. Rome, N. Y.

HIGH-CLASS PRINTING — You are judged by the stationery you use. You have tried the rest, now get the best. Samples. R. T. ANDRE, Chicora, Pa.

REMNANTS, knit underwear, spring weight, white, cream, gray, 1¼ pounds $1. Fancy and plain velvets, pound $1. A. KNAPP, Clark Mills, N. Y.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

WANTED AGENTS to introduce Honeysene, with free samples. Address, E. BEN KNIGHT, Penn Yan, N. Y.

WANTED—Avery motor cultivator, state model, condition, and price. J. F. LEONARD, Johnstown, N. Y.

TWO POUNDS, delicious home-made candy, fudge, carmels and taffy, $1 post-paid. CRYSTAL SPRING FARM, R. D. 2. New Paltz, N. Y.

UNLEACHED—Ashes. GEORGE STEVENS, Peterborough, Ontario.

Look over the premises for piles of brush that need removing; then use part of the week in getting rid of them; they are a danger and menace.

"You Always Get It"

Service Bureau Helps Readers Recover Claims

"I RECEIVED the check all right. Thanks very much for your promptness in taking up our claim. You always get it. Respectfully yours,
"R. H. MORRIS, Rimmerfield, Pa."

It was thus that Mr. Morris acknowledged the receipt for a check for $15.90 forwarded to him on December 19 by the Service Bureau. This terminated a case which we had pressed for Mr. Morris against the American Railway Express Company. There had been some difference of opinion as to the value of the case, which Mr. Morris had consigned to a New York City firm, but a little patience straightened the matter out and the result was entirely satisfactory to our subscriber.

A New Cherry Tree Sent

A cherry tree that didn't grow cost Mrs. A. W. D. of Pa., $3, and the company from which it came reported, when she asked an adjustment, that they found no trace of the order.

However, the Service Bureau took a hand, with the result that the tree is to be replaced by one guaranteed to grow.

Express Company Makes Good

A claim against the express company for $8.37 was rapidly settled when the American Agriculturist took it up. It was due the subscriber, Mr. D. I. P. of New York, because many of the eggs sent a New York commission house were mashed in transit.

The express company not only settled for the mashed eggs, but made good the difference between the standard price and the much lower rate paid by the commission house for a part of the eggs which were cracked. Mr. P. therefore, got the full rate for his entire shipment and gave the Service Bureau credit for saving his money.

payment. In December, she turned the case over to the Service Bureau of American Agriculturist.

A representative of the company immediately called on us and showed us the record, which they had investigated at our request. As a result, they immediately sent a check to Mrs. S., who wrote us that it had been received and that she was very glad to have the matter closed.

When Drying Wet Shoes—When your boots and shoes get soaked, be careful how you dry them. Dry them slowly; never let them get hotter than your hand can stand; wet leather burns before you know it.

THROWING SOME BOUQUETS

"I received a check for the full amount from the express company last Saturday. I surely do appreciate your interest and heartily thank you for your good work. I know that, but for you, I would never have gotten it. Anyone who takes such an interest in their subscribers and works so hard in their behalf, without compensation, will surely meet with nothing but success I know. Any way, here's hoping for the very best for you and your paper."
—LEON A. TALBOT, Edmeston, N. Y.

We didn't mean to quote all that letter, but once we got started it was hard to stop. Mr. Talbot's appreciation made us feel so good that we just kept on to the very end!

At any rate, he seems glad he got the $8.98, and on looking up our records we found that there was no wonder he had despaired of ever seeing it. The correspondence with the express company, the commission house and the subscriber went back to last August, and we had been tempted once or twice to believe that there was no hope of pinning the responsibility on the right firm.

However if there's one virtue we possess, it is patience and we exercised that. Result—a check and better yet, Mr. Talbot's letter. Thanks are due all around.

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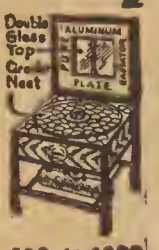

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Who were the devils in human form whose haunt was the lost barranca? Invisible, terrible, they brought the redoubtable young officer of the law to a strange dilemma. The law of the land commanded him not to desert his prisoners; the law of the desert ordained that he stand by his companions. Which did the Fates decree he should obey?

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The Valley of the Giants—*By Peter B. Kyne*

HE had been in town less than an hour when the editor of the Sequoia "Sentinel" sent up his card. The announcement of the incorporation of the Northern California Outrage (for so had Mr. Ogilvy, in huge enjoyment of the misery he was about to create, dubbed the road) had previously been flashed to the "Sentinel" by the United Press Association, and already speculation was rife in Sequoia as to the identity of the harebrained individuals who dared to back the enterprise, Mr. Ogilvy was expecting the visit—in fact, impatiently awaiting it; and since the easiest thing he did was to speak for publcation, naturally the editor of the "Sentinel" got a story which, to that individual's simple soul, seemed to warrant a seven-column head—which it received. Having boned up, what Buck Ogilvy didn't know about redwood timber, lumber, the remaining redwood acerage and market conditions, past and present, might have been secreted in the editorial eye without seriously hampering the editorial sight. He stated that the capital behind the project was foreign, that he believed in the success of the project and that his entire fortune was dependent upon the completion of it. In glowing terms he spoke of the billions of tons of timber-products to be hauled out of this wonderfully fertile and little-known country, and confidently predicted for the county a future commercial supremacy that would be simply staggering to contemplate.

When Colonel Seth Pennington read this outburst he smiled. "That's a bright scheme on the part of that Trinidad Redwood Timber Company gang to start a railroad excitement and unload their white elephant," he declared. "A scheme like that stuck them with their timber, and I suppose they figure that the same old gag might work again. Chances are they have a prospect in tow already."

When Bryce Cardigan read it, he laughed. The interview was so like Buck Ogilvy! In the morning the latter's automobile was brought up from the steamship-dock, and accompanied by his secretary, Mr. Ogilvy disappeared into the north following the bright new stakes of his surveying-gang, and for three weeks was seen no more.

On a day when Bryce's mind happened to be occupied with thoughts of Shirley Sumner, he bumped into her on the main street of Sequoia, and to her great relief but profound surprise, he paused, lifted his hat, smiled and opened his mouth to say something—thought better of it, and continued on about his business. Shirley looked him squarely in the face, and in her glance there was neither coldness nor malice.

Bryce felt himself afire from heels to hair one instant, and cold and clammy the next, for Shirley spoke to him.

"Good morning, Mr. Cardigan."

He turned, and approached her. "Good morning, Shirley," he replied. "How have you been?"

"I might have been dead, for all the interest you took in me," she replied sharply. I'm exceedingly well—thank you. By the way, are you still belligerent?"

He nodded. "I have to be."

"Still peeved at my uncle?"

Again he nodded.

"I think you're a great big grouch, Bryce Cardigan," she flared at him suddenly. "You make me unutterably weary."

"I'm sorry," he answered, "but just at present I am forced to subject you to the strain. Say a year from now, when things are different with me, I'll strive not to offend."

"I'll not be here a year from now," she warned him.

He bowed. "Then I'll go wherever you are—and bring you back." And with a mocking little grin, he lifted his hat and passed on.

CHAPTER XXI

THOUGH Buck Ogilvy was gone from Sequoia for three weeks, he was by no means forgotten. His secretary proved to be an industrious press-agent who by mail, telegraph, and long-distance telephone managed daily to keep the editor of the Sequoia "Sentinel" fully apprised of all developments in the matter of the Northern California Oregon Railroad Company—including some that had not as yet developed! The result was copious and persistent publicity for the new railroad company, and the arousing in the public mind of a genuine interest in this railroad which was to do so much for the town of Sequoia.

Colonel Seth Pennington was among those who, skeptical at first, eventually found himself gradually coerced into serious consideration of the results attendant upon the building of the road. The Colonel was naturally as suspicious as a rattlesnake in August; hence he had no sooner emerged from the ranks of the frank scoffers than his alert mind framed the question:

"How is this new road—improbable as I know it to be—going to affect the interests of the Laguna Grande Lumber Company, if the unexpected should happen and those bunco-steerers should actually build a road from Sequoia to Grant's Pass, Oregon, and thus construct a feeder to a transcontinental line?"

Five minutes of serious reflection sufficed to bring the Colonel to the verge of panic, notwithstanding his firm belief that there was no reason why he should be frightened. Similar considerations occur to a small boy who is walking home in the dark past a cemetery.

THE vital aspects of his predicament dawned on the Colonel one night at dinner. So forcibly did they occur to him, in fact, that for the nonce he forgot that his niece was seated opposite him.

"Confound them," the Colonel murmured distinctly, "I must look into this immediately."

"Look into what, Uncle dear?" Shirley asked innocently.

"This new railroad that Ogilvy talks of building—which means, Shirley, that with Sequoia as his starting point, he is going to build a hundred and fifty miles north to connect with the main line of the Southern Pacific in Oregon."

"But wouldn't that be the finest thing that could possibly happen to Humboldt County?" she demanded.

"Undoubtedly—to Humboldt County; but to the Laguna Grande Lumber Company, in which you have something more than a sentimental interest, it would be a blow. As you know, all of my efforts are devoted to fighting anything that has a tendency to depreciate its value."

"Which reminds me, Uncle Seth, that you never discuss with me any of the matters pertaining to my business interests," she suggested.

He beamed upon her with his patronizing and indulgent smile. "There is no reason why you should puzzle that pretty head of yours with business affairs while I am on the job," he answered. "However, since you desire to have this railroad situation explained to you, I will do so. I am not interested in seeing a feeder built from Sequoia north to connect with the Southern Pacific, but I am tremendously interested in seeing a feeder built south toward San Francisco, to connect with the Northwestern Pacific."

"Why?"

"For cold business reasons, my my dear." He hesitated, and then resumed: "A few months ago I would not have told you what I am about to tell you, Shirley, for the reason it seemed then you were destined to become friendly with young Cardigan."

Shirley blushed, and her uncle chuckled good-naturedly. "Fortunately," he continued, "Bryce Cardigan had the misfortune to show himself to you in his true colors, and you had the good sense to dismiss him. Consequently I see no reason why I should not explain to you now what I considered it the part of wisdom to withhold from you at that time."

"Do go on, Uncle Seth. I'm tremendously interested," averred Shirley.

"Shortly after I launched the Laguna Grande Lumber Company—in which, as your guardian and executor of your father's estate, I deemed it wise to invest part of your inheritance —I found myself forced to seek further for sound investments for your surplus funds. Now, good timber, bought cheap, inevitably will be sold dear. Old John Cardigan had some twenty thousand acres of the finest redwood timber which had cost him an average price of less than fifty cents per thousand.

"Well, in this instance the old man had overreached himself, and finding it necessary to increase his working capital, he incorporated his holdings into the Cardigan Redwood Lumber Company and floated a bond issue of a million dollars. I invested for you three hundred thousand dollars in Cardigan bonds. I bought them at eighty, and they were worth two hundred; at least, they would have been worth two hundred under my management——"

"How did you manage to buy them so cheap?" she interrupted.

"Old Cardigan had had a long run of bad luck. From time to time I discovered bondholders who needed money and hence unloaded at a sacrifice; but by far the majority were owned by local people who had lost confidence in John Cardigan and the future of the redwood lumber industry. You understand, do you not?"

"I do not understand what all this has to do with a railroad."

"Very well—I shall proceed to explain." He held up his index finger. "Item one: For years old John Cardigan has rendered valueless, because inaccessible, twenty-five hundred acres of Laguna Grande timber on Squaw Creek. His absurd Valley of the Giants blocks the outlet, and of course he persisted in refusing me a right of way in order to force me to sell him that Squaw Creek timber at his price."

"Yes," Shirley agreed, "I dare say that was his object. Was it reprehensible of him, Uncle Seth?"

"Not a bit, my dear. He was simply playing the cold game of business. I would have done the same thing had the situation been reversed. We played a game together—and I admit that he won, fairly and squarely.

"Then why is it that you feel such resentment against him?"

"Oh, I don't resent the old fool, Shirley. He merely annoys me. I suppose I feel a certain natural chagrin at having been beaten, and in consequence cherish an equally natural desire to pay the old schemer back in his own coin. Such action on my part is perfectly permissible, is it not?"

"Yes," she agreed frankly, "I think it is, Uncle Seth. Certainly, if he blocked you and rendered your timber valueless, there is no reason why, if you have the opportunity you should not block him—and render his timber valueless."

THE Colonel banged the table with his fist so heartily that the silver fairly leaped. "Spoken like a man!" he declared. "I *have* the opportunity and am proceeding to impress the Cardigans with the truth of the old saying that every dog must have his day. When Cardigan's contract with our road for hauling his logs expires next year, I am not going to renew it—at least not until I have forced him to make me the concessions I desire, and certainly not at the present ruinous freight-rate."

"Then," said Shirley eagerly, "if you got a right of way through his Valley of the Giants, you would renew the contract he has with you for the hauling of his logs, would you not?"

"I would have before young Cardigan raised such Hades that day in the logging-camp, before old Cardigan sold his Valley of the Giants to another burglar—and before I had evidence that neither of the Cardigans knows enough about managing a sawmill and selling lumber to guarantee a reasonable profit and pay the interest on their bonded and floating indebtedness. Shirley, I bought those bonds for you because I thought old Cardigan knew his business and would make the bonds worth par. Instead, the Cardigan Company is tottering on the verge of bankruptcy; the bonds I purchased for you are now worth less than I paid for them, and by next year the Cardigans will default on the interest.

"So I'm going to sit tight and decline to have business dealings with the Cardigans. When their hauling contract expires, I shall not renew it; so they will automatically go out of the lumber business and into the hands of a receiver; and since you are the largest individual stockholder, I, representing you and a number of minor bondholders, will dominate the executive committee of the bondholders when they meet to consider what shall be done when the Cardigans default. I shall then have myself appointed receiver for the Cardigan Redwood Lumber Company, and see for myself whether or no there is a possibility of working it out of the jam it is in and saving you a loss on your bonds.

"I MUST pursue this course, my dear, in justice to you and the other bondholders. If, on the other hand, I find the situation hopeless I shall recommend to the bank that the property be sold at public auction to the highest bidder to reimburse the bondholders. Of course," he hastened to add, "if the property sells for more than the corporation owes such excess will then in due course be turned over to the Cardigans."

"Is it likely to do this?" Shirley queried anxiously.

"It is possible, but scarcely probable," he answered dryly. "I have in mind, under those circumstances, bidding the property in and merging it with our holdings."

"But what will the Cardigans do then, Uncle Seth?"

"Well, long before the necessity arises, the old man will have been gathered to the bosom of Abraham; and young Cardigan can then go to work for a living."

"Would you give him employment, Uncle Seth?"

"I would not. Do you think I'm crazy, Shirley? Remember, my dear, there is no sentiment in business."

"I think I understand, Uncle Seth—with the exception of what effect the building of the N. C. O. has upon your plans."

"Item two," he challenged, and ticked it off on his middle finger. "The Cardigan Redwood Lumber Company owns two fine bodies of redwood timber widely separated—one to the south in the San Hedrin watershed, at present practically valueless because inaccessible, and the other to the north of Sequoia, immediately adjoining our holdings in Township Nine and valuable because of its accessibility." He paused a moment and looked at her smilingly. "The logging railroad of our corporation, the Laguna Grande Lumber Company, makes it accessible. Now, while the building of the N. C. O. would be a grand thing for the county in general, we can get along without it because it doesn't help us out particularly. We already have a railroad running from our timber to tidewater."

"I think I understand, Uncle Seth.

(*Continued on page* 203)

WHAT HAS HAPPENED IN "THE VALLEY OF THE GIANTS"

THE struggle between old John Cardigan, pioneer in the redwoods country, and Colonel Seth Pennington, rival operator, has centered around the Valley of the Giants, Cardigan's favorite grove which block's the Colonel's holdings.

It seems as though the feud has descended to young Cardigan and the Colonel's niece, Shirley Sumner. But the latter, angered by her uncle's unscrupulous methods secretly buys the Valley, planning to force peace. She does not know that Bryce is about to parallel Pennington's logging road, as a last desperate measure to save the Cardigan fortunes.

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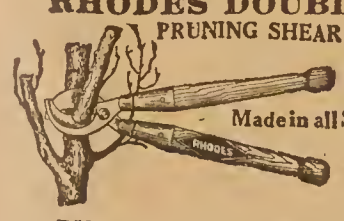

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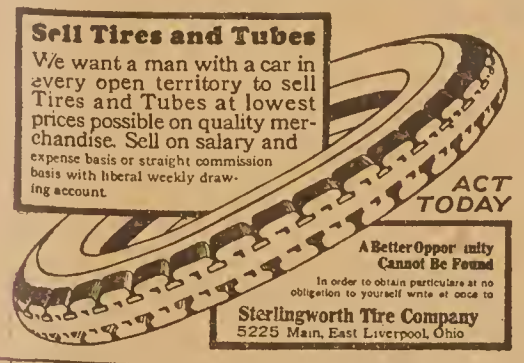

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The Two-Stage Amplifier

Increasing The Sensitiveness of the Detector Set

By BRAINARD FOOTE

NOW that many readers of the American Agriculturist have their single-tube regenerative receivers in operation, requests have come in for a suitable two-stage amplifier for use in conjunction with them. The amplifier described this week is not only applicable to the tube receiver which appeared in the issue of February 3, but to any other form of commercial or home-made one-tube receiver.

What will such an amplifier do for a receiving outfit? Will it increase the receiving distance? No, not very much, but it will greatly increase the strength of signals which can already be heard with the detector tube alone. If a faint whisper can now be picked up on the detector tube from station PWX, let us say, the amplifier will bring up the volume so that it may be heard five or six feet from the receivers, and where signals are strong on the detector alone, a loud speaker may be used to enable the whole family to "listen in" together. Or the phonograph may be pressed into with the regular headphones and a phonograph-radio attachment to the tone arm so that a large-sized room may be filled with music.

When dance music is broadcast, a distinct novelty is provided for family and friends in the form of a "radio" dance. Some find headphones irksome, and will appreciate the freedom where an amplifier and loud speaker are put into use.

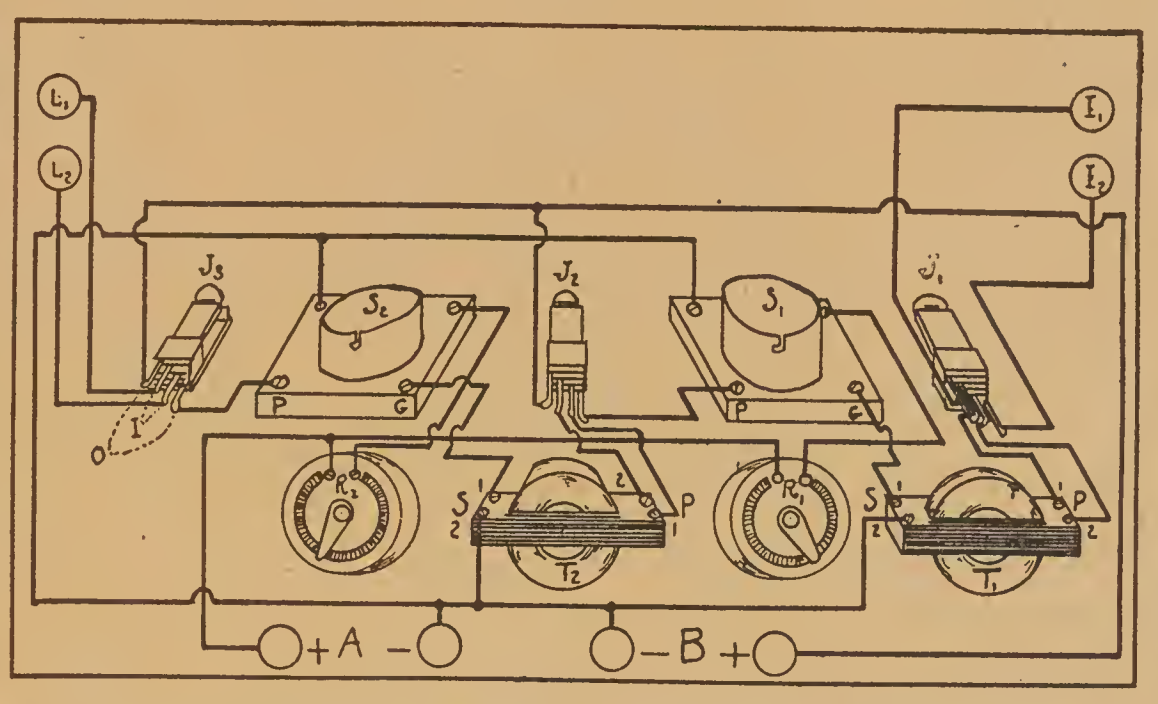

Diagram of a two-stage amplifier to attach to the regenerative set described in the American Agriculturist of February 3

Parts Needed

The approximate cost of the amplifier, all told, will be about $35. Supposing that the parts will be mounted on a panel, the apparatus needed is as follows:

2 tube sockets.
2 rheostats.
3 double-circuit jacks.
2 Audio Frequency transformers.
8 binding posts.
5 lengths bus wire for connections.
1 panel, hard rubber or bakelite, about 7 x 12 inches.
2 amplifier tubes.
1 45-volt "B" battery.

The transformers are perhaps the most important parts of the amplifier, and should cost about four dollars each. WD-11 tubes, if available, may be used for the amplifier, and in that case special sockets will be needed, or the standard socket, used with a WD-11 adapter. Results will not be quite so loud as with Radiotron tubes, however. Standard tubes may be used with success in an amplifier for a set in which WD-11 tube is the detector. In that case both "A" and "B" batteries are separate, though where the detector is a 6-volt tube as well, the same "A," or 6-volt storage battery, is used for both. The "B" battery is separate.

Explaining the Diagram

In the figure is shown a pictorial view of an amplifier as it would appear from behind the panel. Three double-circuit phone jacks are used, and the connections from the binding posts of the receiving set now used for the telephone headset are made to the two posts at the right end of the amplifier. Those at the left side are for the loud speaker. It is the usual practice to mount the transformers on the wooden base to which the panel is attached, and this same procedure may be followed with the tube sockets. The left jack, or that one used for the second stage of amplification, is marked "I" and "O," to distinguish the inside and outside springs. A double jack has four springs, the inside springs of the first two jacks are connected to the primary windings of the transformers. On the diagram will be found the proper transformer connections. Some transformers are not marked as is there indicated. In such cases, P_1 and P_2 will be shown as P and B; while S_1 and B_2 are stamped G and F.

Mounting the Parts

It is best to mount all the parts securely on the panel before any wiring is done, although if desired, the parts may be placed on a board and connected up in that manner. All joints except those beneath binding posts should be well soldered. Parts should not be crowded, and the two transformers should be mounted at right angles to each other to minimize chances for holding due to induction between their windings. The lead wire from the grid of the socket to the transformer should be extremely short, an inch or two.

After the connections to the "A" and "B" batteries have been made, and the tubes lighted, the rheostats should be turned on far enough to light the tubes with fair brilliancy in the case of Radiotrons, and with a dull red glow for WD-11 tubes. Proper brilliancy is indicated by a bell-like ringing sound in the phones when the tube is tapped lightly with the finger. The phones may be plugged into the first jack, when the detector alone is in use, and the set tuned in the usual manner. Then the first stage may be added, and perhaps a slight readjustment will be necessary. The leads to the tuning portion of the set should be reversed as a trial and left in the best position.

The Valley of the Giants

(*Continued from page* 202)

When Cardigan's hauling contract with our road expires, his timber in Township Nine will depreciate because it will no longer be accessible, while our timber, being still accessible, retains its value."

"Exactly. And to be perfectly frank with you, Shirley, I do not want Cardigan's timber in Township Nine given back its value through the N. C. O. If that road is not built, Cardigan's timber in Township Nine will be valuable to us, but not to another living soul. Moreover, the Trinidad Redwood Timber Company has a raft of fine timber still farther north, and if this infernal N. C. O. isn't built, we'll be enabled to buy that timber pretty cheap one of these bright days, too."

(*Continued next week*)

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Removes Dandruff—Stops Hair Falling

Restores Color and Beauty to Gray and Faded Hair

60c. and $1.00 at druggists

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The Story of a Busy Woman's Garden

Sheba Childs Hargreaves Tells How It Was Planned and How It Grew

TO be happy I must have flowers about me, but my days are full; there is no time to give to blooms which require constant petting, so I have finally settled on a definite flower-garden policy. My plan is simplicity itself. I have chosen a plot of ground 20 x 40 feet in a location handy to my kitchen door, where I can slip out in odd moments to weed or hoe. The flowers can be plainly seen from the kitchen windows and on warm days the spicy fragrance floats in and lightens my labor wonderfully.

I prevailed upon friend husband to spade in a lavish quantity of well-rotted cow manure, and to put the plot in first-class shape for me, so that the later labor would be as light as possible. This was done in the fall, when a few of the hardier plants were set in place. In the spring the plot was deeply spaded again.

I had two well-defined aims in view—to grow only flowers which could be depended upon to give a maximum amount of bloom for a minimum amount of labor, and to alternate varieties so that from early spring until the first killing frost my garden would be a riot of bloom. I love wild colors in a garden, so did not labor much over a color scheme beyond planting yellows and reds and hard blues far enough apart to keep the peace.

Plan Flower Grouping Carefully

I made my garden first on paper, grouping the plants in regard to their cultural requirements as well as to their time of blooming. The planting was done in straight rows three feet apart across the plot, so that the head of the family could run the wheel hoe through it when he was cultivating the vegetable garden and thus relieve me of the hard handwork which is made necessary by irregular mass planting.

My selection was confined mainly to hardy perennials, with a few quick-growing annuals for fillers. First, I set a border of old-fashioned sweet June pinks all the way around—they were in white and two shades of pink. They were for fragrance—mignonette and sweet allysum were depended upon when the pinks were not in bloom. I love smelly things in a garden, and it must be confessed that the old-fashioned flowers have been improved in size and color at the expense of fragrance.

It was necessary to group the flowers which take a good, long rest after blooming, so that they would not receive water during the summer. Iris, daffodils and Candidum lilies were placed together. The iris came first, alternating with rows of daffodils chosen to run the gamut of color and to bloom as long as it was "open season" for daffodils. The iris were ecstacies of color during their season, and through the summer their sword-like leaves were pleasing both in the garden and for cutting for foliage.

My Madonna or Candidum lilies came next—they are my choicest possessions; I have 40 large, fat bulbs—think of owning 40 Madonna lilies; they represent some ten years of lily conservation and thrift. I set the bulbs ten inches apart, with 18 inches between rows. They were a delight during their two weeks of bloom, but had to be cut down and allowed to rest immediately after; this barren spot was not pleasing, but this concession has to be made to lilies; they separate and grow thin and spindling if given water after they bloom.

Farther along in the plot I have a few bulbs of the lilium auratum, the sacred lily of Japan, sometimes known as the gold-banded lily; it, together with lilium rubrum, is a late summer bloomer, and so requires constant cultivation and plenty of water. I am planning to buy more lilies with my cigar money.

Do not get the idea that I am an ultra-modern woman trying to break myself of the smoking habit. I have never smoked, neither do I intend to begin, but my life partner indulges, and I hold that I have a right to spend as much money foolishly as he does, so I class my indulgences in choice flowers as "cigar money."

A riot of color makes this corner of the garden a delight to the eye all through the blooming season

The hybridizer has done such good work that the choice of hardy perennials is practically unlimited. The blooming season has been extended and the colors so enriched that they fill the gardener with delight. This is particularly true of hollyhocks—I raise single and double ones in my plot in whites, reds, pinks and yellows. Delphiniums are just old-fashioned larkspurs which the plant wizard has put into perennial form. I grow them easily from seed, though the hybrids do not always come true; they are lovely in color, ranging from pure white to the deepest blue. Often the stalks are six feet high, and if cut back so that seed does not form, they bloom all summer. Delphiniums will not tolerate any root division, but they will last three or four seasons. I fertilize mine with coal ashes and mulch them with straw, which is spaded in the spring. Well-rotted cow manure is the best fertilizer for all the perennials, though some of them like a good handful of bone meal worked into the roots each spring.

Old-Fashioned Standbys Included

I have quantities of daisy-like perennials—double English daisies, doronicum, coreopsis and giallardia, each in its season. These flowers require very little care, but must be divided often to keep them on the "reservation." By alternating the rows of this type of perennials with those which are strictly summer bloomers my garden was never "dog-eared" or shabby last summer.

Snapdragons are lovely with their soft pastel shades; they grow easily and last two or three years if they do not winter-kill. The hardy flox are also a delight. Then there are the perennial Campanulas in different colors and forms. Of course, I have Oriental poppies. The different varieties must be planted apart, coming as they grow in flaming scarlet, vivid orange and soft-shell pink. Anemone Japonica is also a favorite of mine—both white and pink.

It would be impossible to tell of all the flowers I grew last season; it ended in a blaze of glory with the chrysanthemums which had been set at intervals in the rows all over the plot.

It is necessary to be hard-hearted in the matter of separating clumps, if the rows are to be wide enough to admit the wheel hoe, otherwise one has an African jungle to contend with in a few years. But the divided clumps can always be traded to advantage with other flower lovers, though there is one rule to be borne in mind—do not take roots of flowers unless you know exactly what you are getting, for choice varieties take no more room than inferior ones, but they raise the garden high above the level of the commonplace.

"Where Lovely Lilies Lean"

A group of sturdy blooms which bear mute testimony to the constant care they have received

GROWING SALVIA PLANTS

We all like salvias. We can get them in small pots at the greenhouses, but they are a little costly if we want very many. We can just as well grow a supply from seeds by starting them early in a box, and they will make finer plants than those we can buy. The reason for this is that the florist's root cuttings, which never make as pretty plants as the well-grown seedlings, though they begin blooming when a few inches high, while the seedling plant will be a large, bushy plant before it begins to bloom.

I have grown several of the finer sorts. I like Drooping Spikes because of the peculiar droop to the tips, but Bonfire is equally pretty. There are varieties with leaves spotted with white, but I never cared for them.

Plant the seeds early in a box of soil that has been heated to kill weed seeds, for they are rather slow to germinate. Set fresh seeds from a reliable house, for you will not stand much chance of getting good seeds otherwise. Give ample room to develop and keep them growing without much check, and you will have plants ready to set when the weather is warm enough. They are heat lovers, and should not be set outside until settled warm weather.—RACHAEL RAE.

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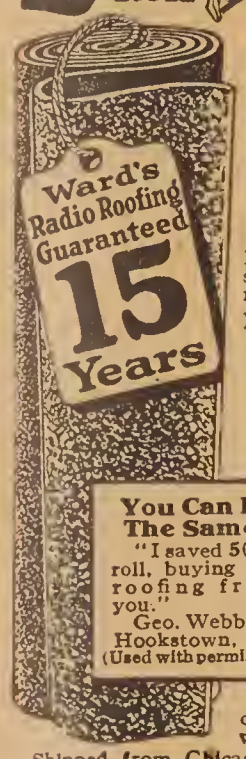

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Wells Richardson Co., Burlington, Vt.

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A Modern Bathroom, $55

Just one of our wonderful bargains. Set comprises a 4, 4½ or 5 foot iron enameled roll rim bath tub, one 19 inch roll rim enameled flat-back lavatory, and a syphon action, wash-down water closet with porcelain tank and oak post hinge seat; all china index faucets, nickel-plated traps, and all nickel-plated heavy fittings.

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Send No Money

AMERICAN SEED COMPANY
Lancaster, Pa.
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Keep Your Promises!

Jean Howard Recalls Bitter Experiences

A RECENT little verse in the "A. A." touched a chord of memory in my own experience. The lines ran:

"Son's pig—and daddy's sow,
Son's calf—and daddy's cow."

In my case it was "daughter's" pig, calf, colt, etc. When the little runt pigs, too weak to fight for their share, or the orphans or those disowned were found, it was "Daughter, take care of that little animal, and if you raise it you may have it."

Oh! the joy of ownership to a child! How gladly I would arise during the night to warm milk for the little porkers! And the rows of corn and beds of garden truck I needed for the crisp and much relished "pusley" and other greens so succulent to piggies' taste; and the numerous trips to the woods for luscious acorns! How proud I was when the one-time scrawny runt claimed the admiration of the whole family by tipping the scales at several hundred pounds!

And then—the things that try a child's faith and innocent confidence in all humanity! "Well, daughter, your pig is the biggest and fattest, so we will butcher it."

Broken Promises Mean Heartaches

If parents could realize, even in part, a child's feelings at such a time, there would be fewer heartaches and disappointments that leave scars for many long years. Ever since I had understood money, I had wanted my own bank account so I could write my own checks. But now—where were all those nice, useful things which were to have been purchased with the money brought by that big fat pet? Instead of going proudly to the local bank to deposit the returns it was a sorrowful trip to the woods (nature's healer of heartaches), to be out of sight and sound when the killing took place.

And the little calf—that my childish heart dreamed of as the foundation of a future herd,—where was it? Driven to market with Dad's and the proceeds lumped in with his for the purchase of new machinery. And at sight of my tears it was always "Never mind, daughter, I'll give you another one some day, and you can do as you please with it."

And the orphan colt I raised "by hand" and loved as a dear chum that he was? It went the same way to swell the ache of a child's trusting heart—and father's bank account as well. Parents, do realize that your boy and your girl love to feel that they *really* own things thus given them—animals which would otherwise have died but for their care and attention! I can testify (and I do not stand alone) that the scars thus caused remain long in a childish heart, while faith is lost in those who should be nearest and dearest.

Teach your children the art of spending money thus earned in some useful way, and let them learn early to rely upon their own judgment—*and upon your promises!* You will have finer, more self-reliant sons and daughters, and proud of the sympathy and co-operation by which their parents made their success and character possible.

THREE STYLES FOR DIFFERENT HOURS OF THE DAY

AN out-and-out apron, an in-between house dress and a smart frock for more formal wear this week, suggest the proper apparel for any time of the day. Best of all, they are equally smart and not at all hard to make. Try them and see!

If you are fussy about the kind of dress you wear about the house, you will like this attractive and practical style. It may be made as the popular coverall which completely protects the garment underneath, or if you like, it is equally suitable as a house dress. Made of printed percale at 15c. per yard, with binding for trimming at 20c. a piece (6 yards in a piece); this garment would cost about 70c. Any amateur home dressmaker could make it in an afternoon.

No. 1560 is cut in sizes 36, 40, 44 and 48 inches bust measure. Size 36 requires 3⅛ yards 36-inch material with 3 yards binding. **Price 12c.** stamps or coin; (stamps preferred).

A touch of daintiness in the embroidery motive, applied to waist and pockets, sets this apron apart from its more prosaic fellows as rather smart and pretty. Yet it is just as easy to make as a more commonplace one. Doesn't the family which sees you so often in the kitchen deserve to see you wear a becoming, graceful style for your work-a-day clothes?

No. 1435 cuts in sizes 36, 40 and 44 inches bust measure. Size 36 requires 2¾ yards 36-inch material with 6 yards binding. **Price 12c.** stamps or coin. **Transfer** pattern **No. 622**—in blue only—**12c.**

Of Chinese origin are the wide sleeves that narrow at the elbow of this smart, new frock, patterns for which are obtainable in sizes 16 years, 36 and 38 inches bust measure. To make the dress with the pleated flounces in the 36-inch size will require 7½ yards 40-inch material. With gathered flounces, of course, less material is required. **Pattern 12c.** stamps or coin. The sleeves are cut in one with the side front and side back. The dress is made to close on the left shoulder.

Crêpe de Chine and satin-faced Canton crêpe are good choices of material for No. 1664.

From A to Z in home dressmaking! Our Spring Book of Fashions is just about as useful a catalogue as you could imagine. Put it on your sewing table beside your work basket; you will find it thumbed and studied every day. Not just pictures of patterns—though there are plenty of them—but sewing lessons, embroidery designs, pictures of the dresses made up, advice in choosing colors and lines—every possible question of the home-dressmaker is answered briefly and clearly.

It's only 10 cents. That seems a bargain, and it is. Add the amount to your pattern order, and after looking over your order to be sure you have sizes, numbers and your address right, mail it to Fashion Department, American Agriculturist, 461-4th Avenue, N. Y. C.

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Reviewing the Latest Eastern Markets

MEANING OF MARKET QUOTATIONS

HERSCHEL H. JONES

ONE of the readers of this page recently asked just what the wholesale prices quoted here mean. "How can the farmer judge from them what the price should be f. o. b. his shipping point?" All the wholesale quotations on this page represent prices paid to original receivers, by jobbers, retailers or other wholesale dealers. On commission sales the returns to the shipper are these prices minus freight, cartage and commission. Such charges as an inspection fee for examination of dressed meat by the health department are usually deducted from the returns.

To compare these New York market prices with your local shipping point prices, find out the freight rate from your local agent, then deduct from the price quoted, the freight on that quantity, the customary commission charge and customary loading charges at your end. Cartage is not a large factor per unit. The usual commission on eggs and poultry is 5 per cent, on fruits and vegetables 10 per cent, on hay $1.50 @ $2 per ton. With hay you do not have cartage to pay but frequently have demurrage or storage.

CABBAGE REACHES $55

No one could have foretold the phenomenal rise in prices of state old crop, white cabbage in the last month. Last week a few sales of fancy, White Danish were made at New York at $52 @ $55 per ton wholesale and on February 21 the best old crop Danish variety sold mostly at $50, with ordinary quality at $45 @ $48. Shipments of Southern cabbage continue light and demand is extraordinarily active. The difficulty of shipping cabbage during the severe weather without freezing was the principal factor in reducing supplies and sending the market up. In our judgment, those farmers who are so situated that they can get their cabbage to market safely while the cold weather continues, will get higher prices than are likely later.

POTATO PRICES TREND UPWARD

Potatoes sold at higher levels at New York, due to a good deal of frosted stock. There has been a steady demand for fancy. Long Island's, South Side, touched the high point for the season $1.25 per bushel to the farmer. Since there are a few cars yet unsold, this price is likely to hold firm or go even higher.

"States" due to cold weather have not been coming in freely and the carlot market in New York City has held about $1.30 cwt. delivered for the best bulk, sacked, 150-lbs. from $1.90 @ $2, carlots, depending upon quality. The jobbing trade has paid from $2.25 @ $2.35 for fancy, poorer stock much lower, some $1.75.

APPLE MARKET MORE ACTIVE

Owing to comparatively light supplies from Hudson River Valley and Western New York, and more active demand, the market for barreled apples advanced just before Washington's Birthday. Fruit of fancy quality large size in good condition and free from frost sold very readily.

Buyers have fought for the privilege of paying $14 @ $15 per barrel for fancy graded McIntosh in the last two weeks. Baldwins, A grade 2½ in. sold February 21, at $4.75 @$5 per barrel, for best, $5.25 @ $5.50 for fancy, and $4.25 @ $4.50 for ordinary. Best Baldwins a year ago sold at $7.25 @ $8. Greenings on February 21, 1923, sold at $4.50 @ $5.50, mostly $5 @ $5.25 for best quality, whereas at this time last year A grade Greenings of fair quality brought $11.50 per barrel.

EGG RESERVE STOCKS LOW

Moderate arrivals of eggs on the New York market in late February maintained a good tone to the egg market, offerings clearing rapidly. The promise for egg arrivals in the closing days of February and early March was an important subject of gossip among the traders. The reserve stocks of eggs are nearly used up in anticipation of heavy spring arrivals.

At New York, nearby hennery whites, extra fancy, uncandled, brought 48 @ 50c per dozen, other nearby extra fancy, whites, locally candled, 50c, extra, 46 @ 47c, extra firsts, 44 @ 45c, firsts, 42½ @ 43½c, pullets, 39 @ 40c, extra fancy hennery browns from New Jersey, 47 @ 48c, other extra browns, 45 @ 46c. As a matter of comparison, Pacific Coast extra whites, sold on the same market at 45 @ 46c per dozen, extra firsts, 43½ @ 44½c.

BUTTER PRICES HOLD STEADY

The higher grades of fresh creamery butter at New York, sold at steady prices; even some of the lower grades were relatively firm. Finest New York State dairy butter, brought 50½c per lb, good to prime, 48 @ 50c, common to fair, 42 @ 47½c. Fresh creamery butter, highest score, sold at 51½ @ 52c, 92 score, 50¾ @ 51c, firsts, 49 @ 50½c.

FIRMER TONE ON FANCY CHEESE

With supply no larger than demanded for absorption by the market, New York State whole milk cheese was firm at 28½ @ 29c per lb, for special, 28c for average run. Fair to good whole milk flats, sold at 26 @27c per lb. Wisconsin whole milk twins, held, brought 27½c, fresh Daisies, 26¼ @ 26½c, New York State skims, 21½ @ 22c.

DRESSED POULTRY STEADY

The third week in February showed some improvement in the dressed poultry trade, possibly due to the holiday on February 22. Prices were steady, except on large size fowls, which were in relatively heavy supply. New York State and nearby dry picked fowls by the bbl, 5 lbs and over, sold at 31 @ 32c per lb, 4 lbs 30c; 3½ lbs and under, 24 @ 29c, dry picked roasting chickens, medium weights, 32 @ 36c.

Live poultry receipts were irregular causing considerable fluctuation in the market prices, sometimes of as much as 2c per lb. on succeeding days.

CHOICE DRESSED MEATS HIGHER

At New York, country dressed veals sold well on a firm market: prices 1 cent higher than in mid-February. Choice veal calves went at 25 @ 26c per lb. prime, 22 @ 23c, fair to good, 18 @ 21c. Best hot house lambs, brought $10 @ $14 per carcass; 30 and 60 lb. pigs sold at 14 @ 16c per lb, heavier weights much lower.

HAY TEMPORARILY SCARCE

In spite of the heavy supplies of hay still on hand in the country, the New York market was practically cleaned out of unsold stocks at all terminals last week and prices went still higher. On February 20, there was only one car received at 33rd Street. The embargo and permit restrictions of the railroads cut off shipping and advanced the market, but it is likely that as usual by the time the shipper who hears of these prices gets his hay to the market, it will be over supplied again and prices down. The best time for shipping hay to New York, however, will undoubtedly be between now and opening of navigation on the Hudson and canals.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on February 23:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras...	48@50	......	......
Other hennery whites, extras	50	44@46	41½
Extra firsts	44@45	......	......
Firsts	42½@43½	......	40
Gathered, whites, first to extra firsts	42½@45	......	......
Lower grades	41@42	......	......
Hennery browns, extras	44@46	......	......
Gathered browns and mixed colors, extras	39@43	41@42	......
Pullets No. 1	39½@40	41@42	......
Butter (cents per pound)			
Creamery (salted) high score	51½@52	55@56	......
Extra (92 score)	50½@51	53@54	51
State dairy (salted), finest	......	50@51	......
Good to prime	......	43@48	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade	Standards
Timothy No. 2	$25@26	$20@21	$19@21
Timothy No. 3	23@24	......	17@18
Timothy Sample	19@20	......	......
Fancy light clover mixed	25@26	......	20
Alfalfa, second cutting	26@27	......	......
Oat straw No. 1	15@17	......	15@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	28c	29@30c	28@29c
Fowls, leghorns and poor	26c	26@28c	......
Chickens, leghorns	26c	22@24c	25@28c
Roosters	15@16c	17@18c	18@19c
Live Stock (cents per pound)			
Calves, good to medium	14¾@16	12½@17	......
Bulls, common to good	4@4½	4¼@5½	......
Lambs, common to good	9½@12½	12½@15½	......
Sheep, common to good ewes	3½@5½	7@8	......
Hogs, Yorkers	9	9	......

STEERS MEET FAIR DEMAND

At New York, beef animals were in fair demand, prices continuing steady. Good steers all sold at $9.75 per cwt, medium grades, $1 @ $1.65 lower, medium to choice bulls went at $5 @ $6.50, choice cows up to $5.50. One group of Pa. steers weighing 1,273 each brought $9.75 per cwt. Market on calves was active and strong with good to choice veals, going at $13.50 @ $17. Some irregularity existed in the hog market. Prices uneven. Medium to light weight animals were quoted at $9.25 @ 9.35 per cwt, pigs, $9.15 @ $9.25, heavy animals, $8.75 @ $9.

Little change was recorded in the sheep market. Wethers sold at, $4.50 cwt, with some fancy animals going as high as $7.50. Lambs of the better sort, brought $15.25 @ $15.50.

FEEDS HOLD FIRM

The Buffalo feed market was less active last week, but prices held firm, with some further advances in mill feeds. Quotations on carlots f. o. b. Buffalo in 100-lb. sacks, Feb. 21, were:

Gluten feed, $46.50@47 per ton; Cottonseed meal 36, $48.50@49; Oil meal 33%-34%, $51 @51.50; Dried brewers' grains, $49@50; Standard spring bran, $34.75@35; Hard winter bran, $35.25@35.50; Choice flour middlings, $37@ 37.50; White hominy, $34.80@35.30; Feed grains, f. o. b. Buffalo, per bu. No. 2 yellow corn, 85c; No. 2 white oats, 53c; barley, 80@ 82c; rye, 76@78c.

GRAIN MARKET FEVERISH

Prices of grains fluctuated up and down in the most feverish manner last week, as first "bulls," then "bears," held sway but the future trading did affect cash grain very much. Cash grain quotations, February 21, follow:

At New York — Wheat, No. 2 hard winter, $1.30½ per bushel; corn, No. 2 yellow, 93c; oats, No. 2 white, 57c; ordinary, white, clipped, 55@57½c; rye, $1.25; barley, 81@82; buckwheat, $1.96@2.25. At Chicago — Corn, No. 2 yellow, 71¼c; oats, No. 2 white, 46@46½c; barley, 64@73c.

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Order Now—Avoid Disappointment

	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
S. C. Leghorns White and Black	$4.75	$9.00	$17.00
S. C. Leghorns Brown and Buff, Barred Rocks	$5.00	$10.00	$19.00
Rhode Island Reds, S. C. or R. C.	$5.50	$10.50	$20.00
White Wyandottes, White Rocks, Anconas	$6.00	$11.50	$22.00
Black Minorcas, Buff Orpingtons	$6.50	$12.50	$24.00
Light Brahmas	$10.00	$19.00	$35.00
Famous Marcy's Jersey Black Giants	$14.00	$27.00	$50.00

ON ORDERS OF 500 to 1,000 of one variety SPECIAL DISCOUNT ALLOWED
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April Chicks 1c lower. May Chicks 2c lower. June, July and August Chicks 3c lower.
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BARRED and WHITE ROCKS, REDS, ANCONAS, MINORCAS, 50, $8; 100, $15; 500, $72.50. BUFF ORPINGTONS and WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. WHITE and BROWN LEGHORNS, 50, $6.50; 100, $12; 500, $60. Postpaid and full live delivery guaranteed. Bank Reference. Order NOW direct from this ad and get them when you want them. Free circular. NORWALK CHICK HATCHERY, Box B6, Norwalk, Ohio. Only 15 hours from New York City.

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White Leghorns and Anconas. Our stock is scientifically culled by experts and headed by large vigorous males. Assuring you Strong, Healthy, Bred-to-Lay Chicks—that will live and grow. Real Money Makers. 100% live delivery guaranteed. Lowest Prices. Catalog Free.
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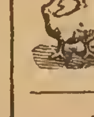
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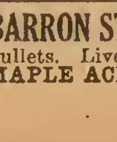
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By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.

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Varieties Prices on . . .	50	100	300	500
Buff & White Wyandottes & Buff Rocks	$9	$16	$47	$78
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Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW, DIRECT FROM THIS AD, and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free.

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VARIETIES.....Prices on.....	50	100	300	500
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Can furnish Pure Bred S. C. White Leghorns from Heavy Egg Layers, headed by Certified cockerels. Pedigreed chicks from Certified stock, also eight-week old pullets and up.

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(5)

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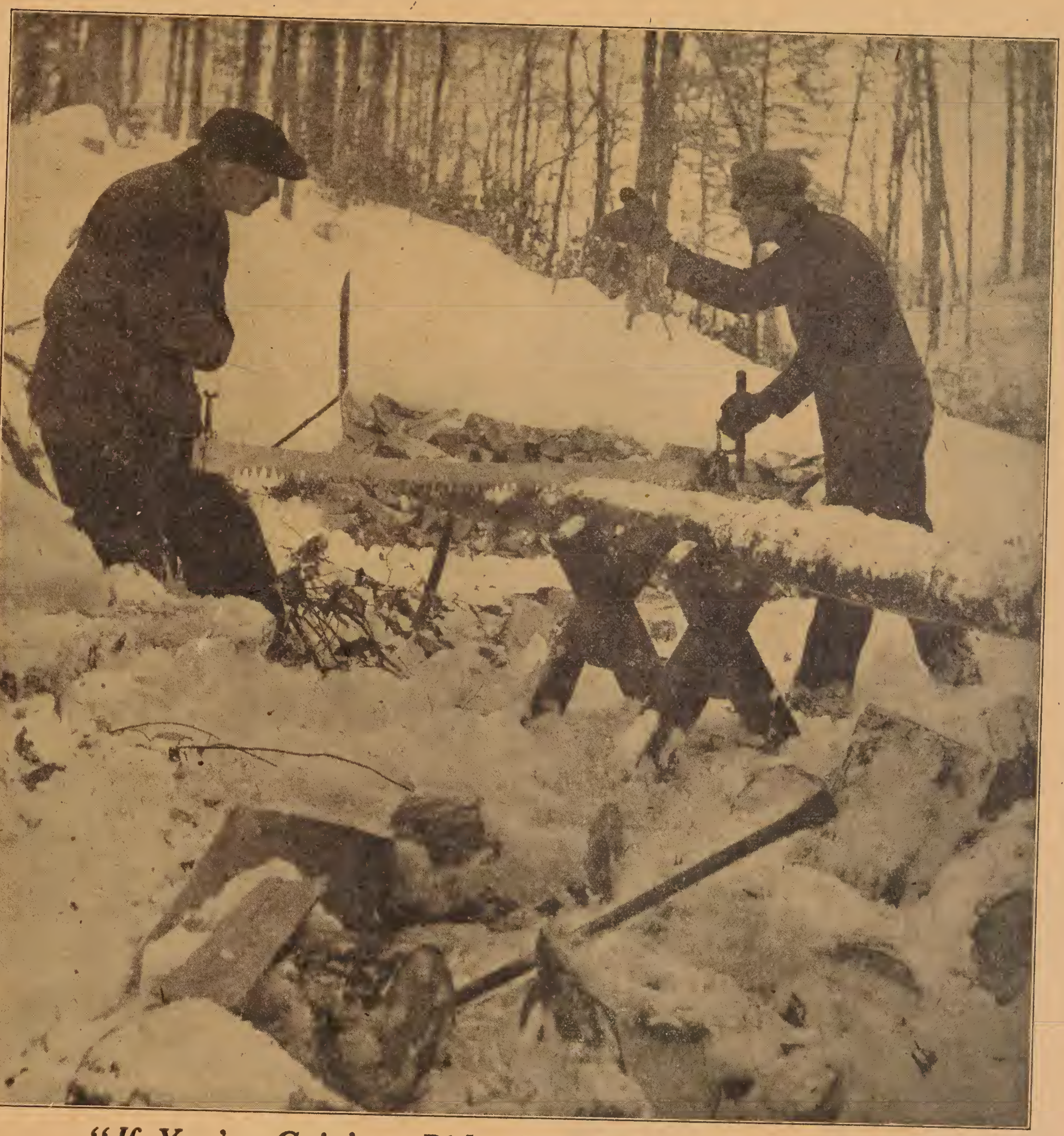
VOL. 111 Founded 1842 No. 10

AMERICAN AGRICULTURIST

$1.00 A YEAR March 10, 1923 5 CENTS A WEEK



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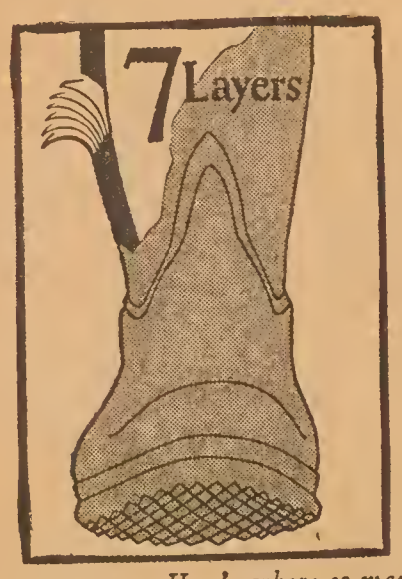

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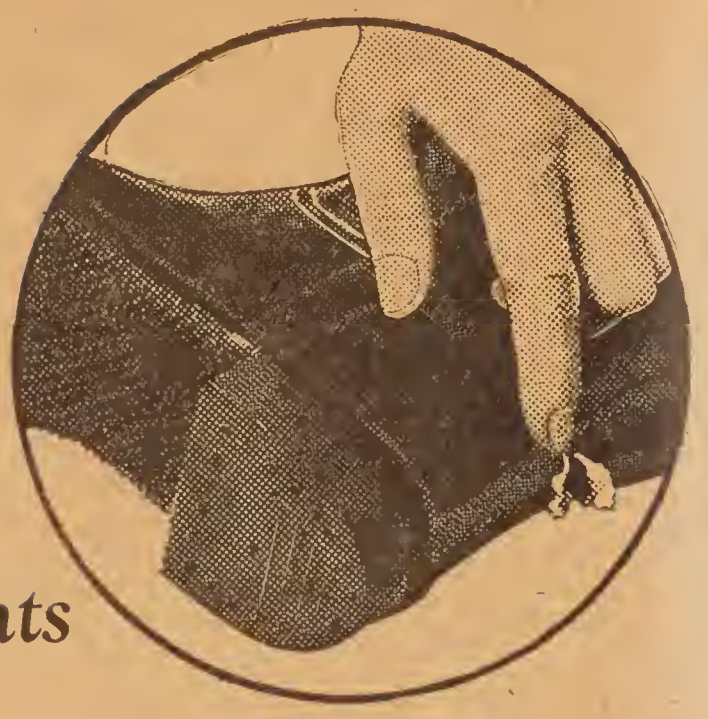

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Volume 111 **For the Week Ending March 10, 1923** **Number 10**

The Handwriting on the Hay Market Wall

How Shall We Reorganize Our Business To Meet the Decreased Demand?

By C. E. LADD

TIMOTHY hay has for years been one of our best cash crops in the Northeastern States. Our cool climate, abundant rainfall, and natural grass soils make this region a great pasture and hay region. The acreage of tillable land, however, will support a much larger live-stock population than our pastures will feed through the summer, so we normally raise a surplus of hay. Moreover, we have at our doors the great Eastern cities that need our surplus hay for their horses.

Hay is a bulky product. A carload ordinarily contains only ten or twelve tons. The cost of shipping a ton of hay even a short distance is very high compared with its value. For this reason hay cannot be shipped long distances without the freight eating up the entire value of the product. Freight rates for many years have been a protective wall, preventing Western hay from competing with Eastern hay in the Eastern markets.

For some years, just previous to and during the World War, hay was one of our best cash crops. Cost-account studies on farms year after year showed hay making a larger profit per hour of man labor than any other general farm crop. The one big drawback to the hay business was that a farmer could only make hay for about six weeks out of the year.

Now, for the past few years hay has been low-priced. Is this a mere temporary condition or are we faced with an era of low-priced hay?

In the winter of 1911-12 farmers sold hay up-State for $18 per ton; in 1912-13 hay sold for only $12 per ton on the same farms. This was largely due to a difference in rainfall during the growing season, with a consequent difference in the yield per acre. The yield of hay per acre in New York in 1911 was 1.02 tons, while in 1912 it was 1.25 tons.

Horses in Cities are Decreasing

Is our present low hay price the result of a good yield per acre, or is there something more back of it? A large proportion of our salable hay has always gone to feed horses in cities. It is probably this proportion of our hay which has fixed the price of the product.

From 1909 to 1919 the number of horses in cities in New York State decreased 53 per cent, according to the United States Census. More than half of the city horses were replaced by automobiles or trucks in this ten-year period. Some men, however, have stated that the change from horses to trucks stopped in 1919, and that since that date horses have increased in cities. It is always dangerous to generalize from a few observations, because we are so liable to observe the unusual rather than the usual thing.

TABLE SHOWING DECREASE IN THE NUMBER OF HORSES IN CITIES AND ON FARMS IN NEW YORK STATE SINCE 1909 CENSUS PERIOD

Number of horses in cities in New York State,	1909	303,256
" " " " "	1919	141,648
Number of horses in New York City,	1917	108,036
" " " "	1917	75,740
" " " "	1921	65,126
Number of horses on farms in New York State,	1909	717,000
" " " " "	1921	520,000

The only available figures to show changes in horse population since 1919 are the reports of the New York City Bureau of Health, which makes a periodical census of the horses in that city. This report indicates that horses in New York City decreased still further from 1919 to 1921. If the same amount of decrease took place in the other cities, then we had only 40 per cent as many horses in cities in 1921 as we had in 1909. This is a tremendous change and must result in a greatly lessened demand for hay.

Shall we grow clover in place of timothy, raising more home-grown grains and proteins to replace purchased feeds?

What are we as hay producers going to do about it? Our hay market will be good again only when the available supply of salable hay is decreased until it just about equals this lessened demand. Shall we carry along an unprofitable business year after year, consoling ourselves each year with the hope that some day the market will be better? Or shall we make a reorganization of our cropping system so as to adjust supply to demand at once and get our hay production on a profitable basis again? The first method calls for a slow starving out until the final adjustment comes. The second method calls for an intelligent change in our cropping system at once which should give quick results.

What Can We Raise in Place of Hay?

For the general farmer who has made his hay sale only a minor part of his business, the change is comparatively easy. A slight increase in live stock may use up the surplus hay. A slight increase in other cash crops and a shortening of the rotation by plowing up sod ground one year earlier than usual will make a sufficient change.

This period of low hay prices should result in shortening our average rotation period and should result in a great deal of poor hay being plowed under as a green manure crop. This may result in increased soil fertility and better crop production per acre.

In northern New York, along the St. Lawrence River, and in various other sections of the State there are considerable areas of heavy clay land which are well adapted for practically no crops except hay and oats. A large proportion of this land is tillable, and the permanent pasture is limited in area. Probably the salable hay of the future will be produced in such regions. It is quite likely, however, that they too will need to decrease their production of hay for sale and build up some other farm sale to take its place. Until the adjustment in hay acreage comes, it will probably be necessary for these heavy clay regions to shift their type of farming or else go through a period of very low profits.

These clay lands do not have much opportunity for change. About the only possibility open to them is to increase their live-stock enterprises, chiefly dairy cattle. This

(*Continued on page* 215)

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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VOL. 111 March 10, 1923 NO. 10

District Superintendents and the School Bill

WHY are there several of the school-district superintendents so active in their opposition to the suggestions for school improvement made by the Committee of Twenty-one? Is it because of any real interest in the educational welfare of the country boys and girls, or because of a selfish desire to maintain their own jobs?

There are a large number of sincere capable men and women acting as district superintendents of schools. Some of these have gone as far as to publicly state that should the educational interests of country children require a change in school supervision, they would be the first to resign their jobs. The schools will always have need for such men and women. But there is another kind of superintendent of small ability and poorly trained, obtaining and holding his job by old-fashioned political methods. These men always work hard to defeat progressive measures which might put better supervisors in their places and give the people more real control of their schools with a correspondingly better educational chance for the children.

It is this class who have been using every opportunity to circulate written matter and to talk to individuals in small groups in an effort to give rural people an incorrect knowledge of the recommendations for school improvement made by the Committee of Twenty-one. These superintendents have been rather bold in their efforts against suggested changes in the school law because they have felt that they had the support of two or three men in the Education Department at Albany who are and always have been enemies of all progress, and who desire to continue to keep the control out of the hands of the rural-school patrons. We are glad to say that such men in the department are very greatly in the minority, and that the department as a whole is working hard and well to serve the boys and girls, but minorities can make a lot of noise and do a lot of damage.

There is much propaganda afloat to the effect that the proposed school bill, containing the suggestions of the Committee of Twenty-one, will force school consolidation. Such statements are absolutely false. Under the present system, which some of the superintendents seem so anxious to maintain, they and the Education Department can force a consolidation of any rural school in the State, and they have done so against the bitter opposition of the school patrons concerned. If the proposed bill now in the Legislature is passed, the boundaries of rural districts as they are now will remain the same and cannot be changed except by local vote.

Under the present law the people elect school directors whose only function is to elect a district superintendent once in five years. These school directors have absolutely no control over the superintendent, and he follows the instructions of the Education Department implicitly. It is right that in educational functions the department should guide, but in matters of administration the people should have a voice. In the proposed bill the superintendent will be elected, after his present term expires, by the district board, and will be responsible in the execution of his duties to that board and through it to local school patrons. Knowing this, can you not see the motive in the minds of some of the superintendents who are fighting the new legislation?

Some of the enemies of school progress and some sincere people are saying also that people are not well informed in regard to the proposed legislation. If they are not, they never will be. For three years the Committee of Twenty-one and its recommendations has been discussed in New York State. At least fifteen hundred local meetings have been held, and the papers have been full of the subject. There never was a piece of legislation that has had more preliminary discussion than the present rural-school bill.

While this bill is long, there are, after all, only a few fundamental principles to keep in mind. If you can agree with these, details can be changed and worked out. First among these suggestions incorporated in the bill sponsored by the Committee of Twenty-one is the principle of local control by school patrons. By it, if you want consolidation, you can have it. If not, no one can put it over on your district, and the same is true of many other principles of school administration. The bill calls for better-trained country teachers and more State aid to such teachers and to the rural schools that need it. Provision is made for an equalization of tax rate, so that the unfair present situation cannot exist, whereby the farmers in one district pay from two to twenty times as much for the same school facilities as is paid in an adjoining district.

Now is the time for you to decide what the future of the country school is to be. Will you take the recommendations of a committee containing a majority of your representatives which has unselfishly worked for three years for your interest and for your children, or will you allow the prejudiced statements and propaganda of the opponents of this bill and educational progress to defeat it for selfish and unworthy reasons?

No Price Fixing of Any Kind

PRESIDENT HARDING'S Ship Subsidy Bill has been defeated. This is as it should be. Both the National Grange and the American Farm Bureau have gone on record opposing this plan of the Government's paying ship owners to operate their vessels.

Right along the same line Senator Gooding has introduced a bill, which has been reported favorably by the Senate Committee on Agriculture, to have the Federal Government standardize the price of wheat at $1.75 per bushel. In other words, this bill would subsidize the wheat growers. Fortunately, it has no chance of passing.

The bitter experiences of the war, and since, ought to have proven that there could be no interference with the law of supply and demand without sooner or later bringing disastrous results. Price fixing or any other forms of subsidy do interfere with the law of supply and demand. They are uneconomic, dangerous, and in the end will cause more trouble than any temporary relief they can produce.

Hay as a Cash Crop

PROFESSOR LADD, in his article on the first page of this issue, has raised a most interesting and important question on the future of the hay market in the East. The market for hay has depended in the past largely upon the large number of horses used in the cities. It is plain, therefore, that with the partial elimination of the horse by the automobile the demand for market hay must decrease.

Thousands of farmers have found hay a very profitable cash crop. Even where much hay is consumed at home, the few tons of surplus high-grade timothy have added a little welcome cash when it was much needed. The high freight rates have helped to give the Eastern farmer an advantage over his Western brother in marketing hay, but even this advantage has not offset the rapidly declining demand.

The question is: Shall we change the farm practice to find some cash crop in the place of hay, and, if so, how? This is not a simple problem, because if we plow more to get some other cash crop we are almost sure to create unprofitable surpluses along other lines. Possibly the real solution is to raise more leguminus hay instead of timothy for consumption on the farm, and if any more plowing is done to raise more home-grown grain instead of buying so much from the West.

State Votes for Coliseum

THE New York State Legislature has passed and Governor Smith has signed the bill for the erection of a Coliseum Building on the State Fair Grounds.

The erection of the Coliseum was one of the conditions demanded by the World's Dairy Congress for coming to New York State and to Syracuse. Therefore farmers of the East are now assured that the National Dairy Show and the World's Dairy Congress, which will be the greatest dairy show of its kind, is to convene in the heart of the Eastern dairy district, at Syracuse.

American Agriculturist has worked hard from the first to get this World Show to come to New York State, believing that it will help to advance and emphasize the importance of the Eastern dairy industry. We are, therefore, naturally pleased that its coming is now assured.

Work on the Coliseum is to begin as soon as the frost is out of the ground, and it will be completed probably in time for the State Fair in September, certainly in time for the Dairy Show, which is to meet a month later. The building will have a seating capacity of nearly 6,000 persons, and it will give the State Fair Grounds much-needed facilities for the judging of cattle, for holding of great cattle sales, and for great farm meetings, where the people can be seated under cover.

"We Are Living in a New Era"

Times Have Changed; Has The Church Been Growing With Them?

AS many opinions as there are churches —that was our first impression on reading the letters about modern religion. Some letters which did not win prizes contained such excellent points that we decided to pass them on to our readers for further thought on the subject.

Not all the writers on the country-church problem agree with the subscriber whose comment on modern reading matter was so unfavorable. You will remember that the letter in question spoke of the flood of cheap modern literature as tending to carry the minds of the young people away from the

Second Prize, L. F. Bishop, Clifton Springs, N. Y.

more substantial "old-time" favorites—the Bible especially.

Mrs. Lewis Doll of Pennsylvania raises a point, however, which is in direct opposition to this attitude and which we believe has a good deal of truth in it. Speaking of the unprepared and immature men sent to be ministers of country churches, she writes: "We subscribe for some of the highest-priced literature published, and we can get better food for our minds in the comfort of our own home without the trouble of going out to church. When we farmers are better educated than these men who come to teach and lead us, how many Sundays will we waste our time listening to a discourse that carries no facts?"

Automobile Plays Its Part

Another thoughtful comment, which shows that elements which are regarded as working against the church in some places have another aspect, was made by Elbert Beebe of New York. Many letters spoke of the effect of the automobile in lessening church attendance. Mr. Beebe pointed out that it also enlarged the territory which a pastor could cover and should therefore be an asset, if rightly appreciated, in carrying out the program of the church. "Our rural pastors and churches have not adjusted themselves to new conditions," writes Mr. Beebe.

Claribel Maye of New York answers critics who believe the church should broaden its social activities by reminding them that the church used to be more of a community center than it is now.

"The country church was once the social center of the community. We did not have to build 'community houses,' for our gatherings were connected with the church; and babies were taken and grew up in church ways. Some years ago they began waiting until children could 'understand' before taking them to the Lord's House; and children, thinking it some new amusement, found it somewhat dull and preferred something else. So now we have a nation of pleasure seekers, and only a few have stood by the church and its works."

The Opposite Opinion

In direct contrast to this opinion is that of Jennie C. Jones of New York, who believes that the church is failing to make itself a vital part of rural life: "The country church has failed to adapt itself to the many changes which modern methods of living have brought about in the community where it is planted. The fundamental principles of the Gospel are the same to-day as preached in the Sermon on the Mount, because principles do not change, while methods do change. We are applying these changed methods to our agriculture and business, but running the churches on the same old program used two generations ago. The church must enter in our everyday life and give something besides theology and denominationalism, in order to become a vital force in present-day country life. Despite the fact that many worthwhile, helpful organizations have sprung up, there is yet no better medium than the church through which to interpret life and develop a rural community consciousness.

"Churches fail because they try to save themselves rather than the community. The community-serving church will live; but we need ministers and leaders who are in closer sympathy and understanding of rural life. There ought to be some provision made for such training."

David Grayson says: "In this roaring age of efficiency we do not long support any institution that does not set its claws deep into our common life—and hang on."

A note of optimism is sounded by Joseph S. Moss, a deacon in a New York State church, who does not believe in too sweeping a condemnation of modern practices or in unduly idealizing the "good old days." "With all due respect to our forefathers," says Mr. Moss, whose active church experience covers a period of over fifty years, "they lived in their time. Some of them thought all infants not baptized were lost, and a good many thought it was right to have liquor. We are living in a new era. There never was a time in the history of the world when Christ's words were more fulfilled: 'By this shall all men know that ye are my disciples, if ye have love one to another.'"

But the great lack to-day is leadership, according to Mrs. I. A. Vought of Pennsyl-

Third Prize, Mrs. Hanna Payne, Raquette Lake, N. Y.

vania, who says: "People are not less spiritual than in former years." Echoing the cry heard in other than religious professions, Mrs. Vought appeals for strong, well-trained, broad-minded men as pastors.

Give the Young People a Chance

"Many communities lack good leaders. We should have a leader in each church activity, and not leave all to one overworked leader. Give the young a very large place in all church activities. They put youth, vigor, and enthusiasm in the work. We need church buildings which have modern lighting plants, Sunday-school rooms, social, and rest rooms."

Mrs. George Gray of New York sums up the difference, as she sees it, between the ministers of other days and of the present:

"What is the trouble with the church? The churches to-day are weak because they are not doing evangelistic work.

"Dominie Weiting and his contemporaries were evangelistic, and the church held the first place in their lives. When the individual church members of to-day put 'first things first' the church will come back to its former glory and the problem will be solved."

Honorable Mention Award, Ray F. Pollard, Cobbleskill, N. Y.

First Prize Award will appear on the cover of an early issue of American Agriculturist

100 Bushels Oats Per Acre—Read Below

"Side" Oats *for Seed*— A Heavy Yielder Priced Right

IF you grow Oats—here is an ad you should read. And here is an Oats you should sow. A kind that will pay you! It is not something new—but has proven a good dependable variety by seven years' actual use throughout all Eastern and Northern States. Read of its record below:

This **Improved White Russian Oats** is medium early—makes great heads, long and well-filled. Formation of heads tends to one side of stem, the growth resembling that of a horse's mane. The straw is stiff, very stiff—does not lodge—carries well its weight of grain until fully ripe—even on the level plains of North Dakota where storms have full sway. This variety resists rust wonderfully—has suffered very little when other oats were destroyed by rust.

Grain of **Improved White Russian** is plump—very solid. There is no waste space within—the hull being very thin, and the actual kernel itself surprisingly large. This makes Improved White Russian an Oats of the highest feeding value. The seed is highly cleaned and recleaned over four machines—carries no weeds whatever. Weighs 43 lbs. per bushel (not clipped). Beautiful in appearance. Sound in germination.

The yield of **Improved White Russian** is enormous. Note the field shown above that made 100 bushels per acre. Many Eastern growers had 75 to 85-bushel yields. Space prevents, or many splendid letters from customers could be printed—letters about the yielding ability of this exceptional Oats.

Improved White Russian is hardy, prolific and profitable. It will pay you to replace your other oats with it. Results will please you. Sow three bushels-by-weight per acre. Your growing crop will doubtless attract the attention of neighbors who will be anxious buyers for seed of it for their crops next year. Improved White Russian will please you and pay you!

Price: (All **bags free**—and **freight prepaid** as stated below) 2 to 14 bushels at $1.45 per bushel, 15 to 34 bushels at $1.40 per bushel, 35 to 74 bushels at $1.35 bushel, 75 bushels and over at $1.30 bushel. Bags are free. We pay the freight on 10-bushels or more to any railroad station in Penna., New York, New Jersey, Ohio, Maryland, Delaware, Virginia, West Virginia, Conn., Mass., and R. I.

These offers of freight and bags are important—note them closely.

If you don't like this Improved White Russian Seed when you receive it, return it—and we'll do the same with your money, and pay round-trip freight. If our offer was not genuine, this paper would not print our ad. Order today.

A. H. Hoffman, Inc., Box 60, Landisville, Lancaster Co., Pa.

Field Inspecting G. L. F. Clover Seed in the Northwest

G.L.F. SEEDS are guaranteed

To be of high quality, purity, and germinability, and to be free of all mixtures or adulterations with imported, southern grown or otherwise inferior seed.

Farm Leaders Use G. L. F. Seeds
ON THEIR OWN FARMS

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John Barron, Cornell Crop Specialist
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Chas. Wilson, Former Comm. of Agriculture
M. C. Burritt, Vice-Director of Extension
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OVER 15,000 FARMERS HAVE PROVED THE SUPERIORITY OF G. L. F. SEEDS. ORDER YOURS TODAY! WRITE

Coop. G.L.F. Exchange, Inc., Syracuse, N.Y. Seed Dept. 10

"Victory Plants"

5 Butternut trees, $1.00. 5 beautiful Virginia Cedars, $1.00. 100 Gibson or Dunlap and 100 Everbearing Strawberry plants for $2.00. 1,000 choice Strawberry plants for $3.50. 25 choice Gladoli bulbs for $1.00. One Spirea or two Concord grapevines free with every order of $4.00 or over. 5 Spirea V. H. for $1.00. 1,000 fine Concord grapevines for $40.00 or $30.00. 20 or 12 Concord grapevines for $1.00. 12 Gooseberry bushes for $1.00. 100 Asparagus roots for $1.00. Not the cheapest, but the best. Live and let live prices. All above small bargains postpaid. Catalogue worth seeing, free.

THE ALLEGAN NURSERY
Allegan, Mich.

CLOVER AND Timothy

$4.50 Per Bu. Blue Grass, $4; Red Top, $2; Orchard Grass, $2; Alfalfa, $7; Red Clover, $12; Sweet Clover, $6.50; Sudan, $6; Grimm Alfalfa, $20; Alsike, $10; Cane Seed, $2; sacks free. Ship from several warehouses and save you freight. Satisfaction or money refunded. Order before another advance. Write for samples. **MEIER SEED CO., SALINA, KANSAS.**

CHOICE STRAWBERRY PLANTS $3.75 PER 1,000. All standard varieties, $3.75. Guaranteed first-class or money refunded. Catalog. MRS. FILENA WOOLF, ALLEGAN, MICH.

Where Folks Travel Little

What Is to Become of Sections Like This?

By J. VAN WAGENEN, JR.

I HAD thought that more than 25 years of Farmers' Institute work had enabled me to see—if not all the agricultural highways and byways of our state—at least conditions representative of all of them. Recently however, I came to a locality which had all the interest and charm of novelty. It was the community of Point Peninsula. The place is a part of the North Country and by road is thirty miles west of Watertown. The Point juts boldly out into Lake Ontario and escapes being an island only by virtue of the narrowest possible neck of land—a sandbar with a causeway and road so close to water level that when the winter gales sweep the lake, the waves sometimes pile the gravel ("shingle" as the salt water beach dwellers would say) up on the road in such quantities as to interfere with passage.

J. VAN WAGENEN, JR.

On this low, windswept peninsula are something more than 7,000 acres of land, about fifty farms, five school districts, one post office, one country store, one Grange hall and one little Methodist church, and say half a dozen houses making up the tiniest of hamlets. I forgot to ask if there was a resident physician. If not, I wonder what these farm folks do when gripped by the sudden terror of illness at midnight or when a child is to be born into the world.

East and south there are broad arms of water, north there is water and the narrow trail to the mainland but west there is only the wide expanse of the open lake—200 miles of water with only an island or two on the horizon. Eighty years ago in a speech in Congress which is still a classic of its kind, Proctor Knott characterized the Great Lakes by that happy phrase "The Unsalted Seas."

Agriculturally the Point is not bad. Indeed except for its isolation it would be reckoned among our better lands. There is little outcrop of lime rock on the higher parts and I noted some granite boulders, wandering lost rocks, brought down from the north-east by glacial ice-sheet. But on the whole it is a level, deep and rather fertile soil. There are several tractors—and tractors do not come to very rough or infertile regions. Once they tell me the Point was covered with wonderful forests and the first adventurers were lumbermen but men have been farming it now for a hundred years.

There are many cows, but only five or six silos, the meaning of this being that hay grows easily while the late spring and the relatively cool days and nights do not fit corn. On the other hand if you do grow corn it is hardly necessary to worry over early frosts because the big lake while it soaks up heat all summer so that sultry nights are unknown acts like a giant hot water bottle when the cool October nights draw on. Large bodies of water are wonderful equalizers of temperature variations and the peach and grape regions of our state owe their existence mainly to this particular fact.

The same reasons that render this a rather poor locality for corn, make it almost ideal for oats. The oat is a cool weather plant. Its worst enemy is burning hot days and this is the reason why Jefferson is the banner oat county of the state, growing an average of some seventy thousand acres.

The Point is on the whole level but has some roll—not the dead flatness of some of the adjacent mainland. The trees with their tendency to lean and with their branches inclining toward the east and south, testify to the sweep and persistency of the lake winds that gather force over many watery miles.

I doubt if there is another community in our state of equal size which is so isolated. In summer it is a matter of a boat or a twelve mile drive to the nearest railroad. After winter gets thoroughly settled down and the ice on the Bay gets firm and safe, you can drive across the ice from Three Mile Bay or from Chaumont—a distance in either case of six miles. This temporary winter highway over the literally trackless expanse is marked by a long straight line of cedar brush set in the ice because even to the islander accustomed to the Bay and the landmarks, it would be no joke to be caught at night or in a blinding snow storm without these friendly guides. There is another factor that must be reckoned with in crossing big sheets of ice and that is the formation of pressure ridges. Ice fields miles in extent do not remain smooth and unbroken like a frozen millpond. In warm thawy days ice expands like any other substance and in the case of big areas this expansion can only be taken care of by the ice buckling up into a very abrupt, definite ridge, three or four feet high and miles long. They tell me that every winter these pressure ridges occur in almost exactly the same place. We met one that was difficult to get over. In fact we drove along it for perhaps a mile until we found a place where a team could cross. Going back our driver who was a landsman declined to take the chance of crossing in the dusk so we took the road over the isthmus—a long twelve miles. I think too that he felt better when he remembered that there was good firm soil instead of water beneath him.

It is not a Benighted Community

Let me make one thing clear. This may be an isolated community but the people who came to the Institute were fully the equal of any audience you are likely to gather in the state. They were farm folk to whom you may properly apply that fine adjective "cultured" and their names were English names betraying their New England ancestry—yet another example of the qualities of the Puritan stock.

But in talking with them I found a note of pessimism regarding the future of the Point. Many of the old families who had achieved some measure of agricultural success are selling or renting their farms and going elsewhere—perhaps to educate their children—perhaps to be a little nearer to the rest of the world. And it seemed to be universal testimony that the new comers lacked the fine standards of the older generation.

Then too, there seems to be some unfortunate economic conditions. Years ago there was a great deal of barley grown and schooners tied up at the dock

HIRUCO

Improved and Pedigreed Seed

PEDIGREED BARLEY, Cornell's two favorites. FEATHERSTON No. 7, six row. ALPHA, two row. For description see our advertisement February 17th issue or send for circular. Price, Featherston No. 7, $2.00; Alpha, $2.25.

PEDIGREED SEED OATS, cleaned through thoroughly equipped warehouse and treated for prevention of smut. Varieties — CORNELLIAN, VICTORY, CROWN and GOLDEN RAIN. For description see our advertisement February 17th issue or write for circular. All varieties, $1.50 per bushel.

SEED CORN, New York State grown from selected ears in special fields.

Pedigreed CORNELL ELEVEN and Improved OIL DENT. For description see our advertisement February 17th issue or send for circular. Screened, $3.00 per bushel. Tipped and butted for accurate planting, $5.00 per bushel.

CERTIFIED SEED POTATOES, HIRUCO NUMBER NINES for seed plots, $3.00 per bushel. GREEN MOUNTAINS and IRISH COBBLERS treated seed, $3.00 per bushel. BLISS TRIUMPHS special stock treated, $3.50. In bushel boxes, $4.00. For description see our advertisement February 17th issue.

SOY BEANS, Black Eyebrow, an early sort. Bids fair to be most popular sort in New York and Pennsylvania. Price, $4.50 per bushel.

HUBAM SWEET CLOVER, Scarified, high germination and purity. Grown in New York. Price, small lots, 50 cents per pound, postpaid. Bushel lots or over, 40 cents per pound.

All prices bags free, freight paid. All orders to be accompanied by 25% cash. 3% may be deducted if sending all cash with order.

Investigation through Farm Bureau or Agricultural Colleges invited.

HICKOX-RUMSEY CO., INC., Batavia, N. Y.

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MAULE
SEED
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Send Today
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BOX OF SEEDS—10c

This is a Wonderful Box of Seeds and will produce bushels of Vegetables, Fruits and Flowers.

The following **10 Packets** of **Seeds** will be mailed to any address for only **10c.**

1 Pkt. (300 seeds) Cabbage--60-day--Produced heads in 60 days.
1 " (600 ") Lettuce--Earliest or 12-day--Record breaker.
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1 " (100 ") Tomato--Early Tree--best of all Erect grower.
1 " (25 ") Garden Berry--Fruits in 4 months from seed --good for Preserves and Pies.
1 " (50 ") Aster-Bouquet-1 plant is a gorgeous bouquet.
1 " (1000 ") Poppy-Firefly-Most gorgeous poppies grown.
1 " (2000 ") Flowers--27 varieties--Great mixture--Wonderful colors.

I Guarantee you will be more than pleased. New **1923 Seed Book** of the best **Vegetable** and **Flower seeds,** many **Novelties** in Colors, free to all. Order today.

F. B. MILLS, Seed Grower, Box 40, ROSE HILL, N. Y.

West Branch SWEEPSTAKES

A Hardy Ensilage Corn

Get your Ensilage Seed Corn, direct from reliable growers in the famous West Branch Valley of Northern Pennsylvania. Every field producing this corn was thoroughly inspected by a disinterested committee of experts. Every bag is certified and guaranteed by the growers to be mature, of high quality, purity and germination.

Ask your County Agent about this genuine West Branch Sweepstakes Ensilage Corn. Write us for sample, prices and complete description.

WEST BRANCH CO-OPERATIVE SEED GROWERS' ASSOCIATION, INC.
Box A, Williamsport, Pa.

CHOICE SEED CORN

Field selected rack dried 98% germination Improved Champion Yellow Dent Seed Corn at $2.50 per bushel on the ear. Ripens in about 125 days and an enormous yielder. Has averaged over 130 bushels shelled corn to the acre. W. W. WEIMAN, P. O. Box 469, Hummelstown, Pa.

LIMITED QUANTITY OF
Hubam Clover at $12.00 per bushel
Hubam originated here. Certified seed
Alabama Hubam Clover Ass'n, Inc.
NEWBERN, ALABAMA

WOOD ASHES Hard Wood, Unleached, $13.00 per ton in car or less.
W. H. LEIDY SWARTHMORE. PA.

CERTIFIED SEED POTATOES. PURE STRAIN BRAND
A. G. ALDRIDGE SONS, FISHERS, N. Y.

to load barley for Oswego, but this industry has gone, and for reasons unconnected with the 18th amendment. Today the main product is milk for the one cheese factory. Timothy hay grows exceptionally well, but the difficulties of marketing at present seem insuperable. The little hamlet had once two piers running out into deep water and a wharf-house where the barges loaded hay and where coal was delivered at very moderate freight rates. Now all this is gone and the grinding ice floes have carried away the timber of the dock. No one seems to know just why —but the tiny port is dead. Along the western horizon go the big freighters on their steadfast way between Chicago or Duluth and Ogdensburg or Montreal, but no more do the little steamers make Point Peninsula a port of call. It is hard to escape the feeling that somehow the Golden Age was in the past.

In the Good Old Days

In the old days every farmer was a fisherman when the famous Chaumont ciscoes came into the Bay "about election time." Once literally thousands of barrels were caught and salted. Then came a period of years when the cisco almost disappeared, but once again some very good catches have been made within the last two or three years.

I feel a particular interest in this community—these folks who are holding this particular sector of the agricultural battle front under such rather special difficulties of isolation and lack of market facilities. It has occurred to me that local cooperation might result in the ownership of a community barge which should take hay to, say Oswego and should bring back coal and lumber and fertilizers. Then too, it might be that our great Up-State Public Service Commission could order some steamboat corporation to give freight service when it was needed at rates that were not confiscatory. This is just a suggestion in behalf of a community which have more than their fair share of difficulties.

CORN FOR SILAGE

During the week of September 18, a representative of the Department of Plant Breeding of the College of Agriculture visited the fields of a Farmers' Cooperative Association near Williamsport, Pa., and inspected the West Branch Sweepstakes corn grown by this association.

There are several varieties of corn grown and sold under the name Sweepstakes. Such information as is available indicates that the corn grown by this association and sold through its representatives is earlier in maturity and gives a higher percentage of dry matter than other corn sold under this name but derived from other sources.

It is suggested that growers desiring this corn should be careful to see that it comes from an approved source and from inspected fields. Orders are now being placed by dealers for the supply for the coming year, and it is desirable that they also acquaint themselves with the sorts recommended by the county agents and the College of Agriculture. —F. P. BUSSELL, Department of Plant Breeding, New York State College of Agriculture.

The Handwriting on the Hay Market Wall

(*Continued from page* 211)

will result in the poorer land being thrown into pasture and the tillable land being worked in a shorter rotation with more corn, more clover, more manure, a better balanced farm business, and a more permanent agriculture. If this business is once organized, it will not easily be abandoned for the old type of hay farming again.

Will the hay raisers see the handwriting on the wall, or will the change come by the old time-honored starvation method?

Showing Cattle — Dairymen can secure good reputation for their live stock by taking pains to place them in a show ring in the best of condition. Clip long hair, scrape and polish horns and hoofs with linseed oil, to which a little yellow ochre has been added, wash the skin and hair with soap and polish with the palm of the hand.

DIBBLE'S *tested* SEED OATS

Northern grown, from selected stock seed, thoroughly recleaned twice in our own seedhouse and tested both for purity and germination, frequently produce maximum crops when ordinary seed is a failure.

In Dibble's Heavy-Weight Oats, we offer the heaviest and most productive American grown oat. The straw is tall, strong and stiff. The grain is thin-hulled with average weight of 42-44 lbs. per measured bushel, although we have had several crops of 47 lb. grain. Yields have been reported to us of 80-82-87-90-92 and up to 118 bushels per acre, right here in the Middle and New England States. Why not grow this kind of a crop on your farm?

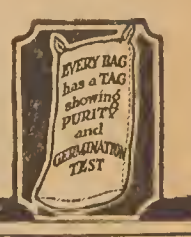
Dibble's Twentieth Century, extra early, extremely productive, grain weighing 34-38 lbs. On our own farms growing from 100-150 acres annually, they have given us a yield during eight to ten years of over twice the average of the U. S. for the same period. Scores of our customers have written us that "Dibble's Seed Oats have doubled their crops." We make a special low price on 10 bushels or more delivered.

FREIGHT PREPAID TO YOUR STATION

Write at once for 10 sample packages of Dibble's Farm Seeds which include both kinds of Oats, Dibble's Farm Seed Catalog and Special Price List—Free. Address

EDWARD F. DIBBLE SEEDGROWER, Box A, HONEOYE FALLS, N. Y.

Headquarters for Seed Oats, Corn, Barley, Soy Beans, Field Peas, Alfalfa, Clover, Grass Seeds and Seed Potatoes.



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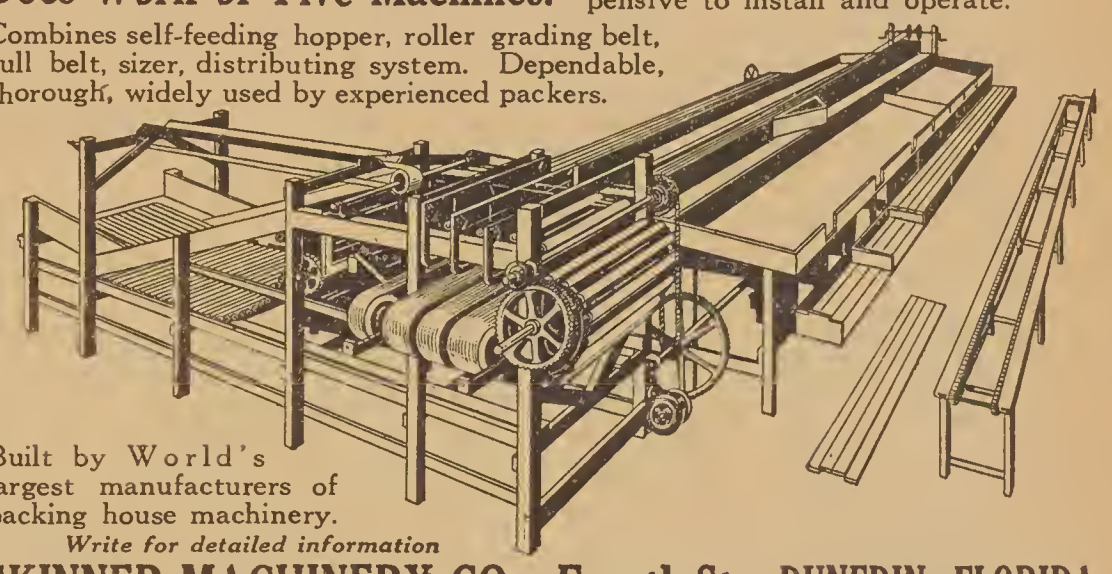
Does Work of Five Machines. Compact, convenient and less expensive to install and operate.

Combines self-feeding hopper, roller grading belt, cull belt, sizer, distributing system. Dependable, thorough, widely used by experienced packers.



Built by World's largest manufacturers of packing house machinery.

Write for detailed information

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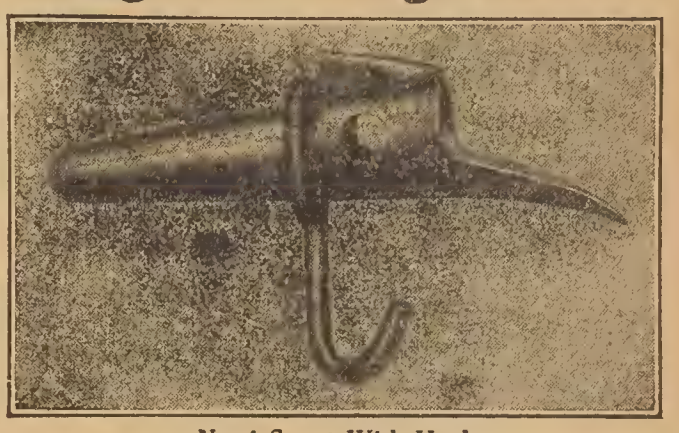
The Grimm Maple Sugar Making Utensils

The Leading Sugar Makers are using Grimm Spouts. If interested in knowing why, write for Catalogue "C" telling us the number of trees you tap.

We can ship from stock all Utensils used in a Sugar Camp



No. 4 Spout With Hook

G. H. GRIMM COMPANY, RUTLAND, VT.

Pedigreed Farm Seeds High-Yielding

Cornellian and Empire Oats | **Certified Russet Potatoes** | **Robust Beans Cornell No. 11 Corn**

Yielding ability thoroly tested. Inspected for disease-freedom and purity. Condition and delivery guaranteed. Write for records, descriptions and prices. Ask your County Agent about them.

QUAKER HILL FARM

K. C. LIVERMORE Box R, HONEOYE FALLS, N. Y.

CABBAGE SEED Danish Ball Head
True Danish Grown

Tested seed. $1 per half pound, postpaid. Write

FARMERS' SERVICE CO., Inc.
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"Spraying the Home Garden"

In this little book, by B. G. Pratt, you will find in concise, interesting language, a wealth of information on insects and diseases that infest trees, shrubs, vines, vegetables and flowers—with simple instructions on the control of these pests. In addition is a chapter, "My Rose Bed." Written for the amateur, this booklet is of equal interest to the commercial fruit and truck growers —sent prepaid for 2c stamp. Address Dep't 50,

B. G. Pratt Co. 50 Church St. New York

For Economy—

Use G. L. F. High Analysis Mixed Fertilizers

Our high analysis mixed fertilizers contain a minimum total of 16 units of plant food per ton. Use a more concentrated formula instead of the old low analysis. Apply less of the high analysis mixture and distribute the same amount of plant food per acre at a saving in cost. Obtain more plant food per ton and pay less freight, by using high analysis G. L. F. Fertilizers.

The College of Agriculture at Ithaca states that there is absolutely no place for low analysis fertilizers in New York agriculture and that present economic conditions necessitate an intelligent and conservative investment.

G.L.F. FERTILIZERS
Dependable Quality

High Analysis Mixed Fertilizers—contain not less than 16 units of plant food per ton.

Dependable Acid Phosphate—guaranteed 16% available Phosphoric Acid, thoroughly cured, milled and screened, from best quality Phosphate Rock and clear Sulphuric Acid. No sludge acid used.

Raw Materials—for shipment in straight, assorted or less than carload lots. We offer you especially attractive prices on straight car shipments.

Safeguard your fertilizer investment. Let the G. L. F.—a farmers' organization, owned by farmers,—buy your fertilizer for you

Your local G. L. F. agent will take care of your requirements, or if there is no local agent in your community, write

The Cooperative Grange League Federation Exchange, Inc.
Dept. F, Byrne Bldg., Syracuse, N. Y.

Send No Money **31-Pc. DINNER SET Given** Send No Money

Simply send name and address. Merely

Give Away 12 Beautiful Art Pictures

with 12 boxes of our Famous White Cloverine Salve which you sell at 25c each and we will send you this Beautiful Dinner Set artistically decorated with clusters of roses, foliage and green leaves in their natural colors, according to offer in our Big Premium Catalogue which you receive with Salve. Millions use Cloverine for Chapped Face and Lips, Burns, Cuts. Our Plan Easiest and Squarest. Write quick for pictures and salve. Our 28th year. We are reliable. Agents make big money in commissions.

WILSON CHEM. CO., Dept. D-146, TYRONE, PA.

GRASS SEED
FREE SAMPLES Wonderful Value Wholesale Prices Highest Quality

Don't fail to investigate these bargains. Recleaned Tested Timothy **$3.15** bu. Sweet Clover unhulled, **$2.85** bu. Alsike Clover & Timothy **$4.00** bu. Sudan Grass **15c.** lb. Alfalfa **$9.95** bu. Have high quality of Clover and other Grass & Field Seeds at low prices. All sold subject to State or Government Test under an absolute **money-back guarantee.** We specialize in grass and field seeds. Located to save you money and give quick service. We expect higher prices-Buy now and save big money. Send today for our money-saving Seed Guide, explains all-**free**

American Field Seed Co., Dept. 615, Chicago, Ill.

One man STUMP PULLER

POWERFUL and SPEEDY.

Built into a sturdy wheelbarrow frame for easy moving. Light and strong - easy to operate. With a WHEELBARROW STUMP PULLER you can pull your stumps, trees and hedge at a saving of time, labor and money. No horses—no help required.

FREE! 30-DAY *Money-Back* TRIAL—

Use it on your own stumps in your own way for thirty days—Guaranteed against breakage for 3 years. FLAW or NO FLAW—Terms, $10.00 Down, a year to pay balance.

The WHEELBARROW STUMP PULLER costs no more than others.

Write TODAY for Catalog—

MARTINSON WHEELBARROW STUMP PULLER

"I know that I saved the price of my Martinson Stump Puller on the first 10½ acres cleared with it." — Theodore Anderson, War road, Minn.

MARTINSON MFG CO.
1204 Lincoln Building,
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New White Annual Sweet Clover

Big Money Growing Hubam

HUBAM FREE

Every farmer should know about Hubam. Our seed recleaned and certified, absolutely dependable. Prices lowest yet. Write for FREE SAMPLES and 116-page catalog describing this wonderful crop. We carry a complete stock of all seeds.

Seeds for Testing

A. A. Berry Seed Co., Box 1015 Clarinda, Iowa

Spraying by Telephone

Orleans County Works Together for Quality Fruit

By G. E. SMITH

ORLEANS COUNTY situated in the famous fruit belt of Western New York, boasts of a spray service which saves its fruit growers thousands of dollars per year.

The work was begun in 1918 with 275 men in the service and that number has increased to about 1,000 members at present. The work is carried on through the local Farm Bureau which cooperates with the United States Weather Bureau, the New York State Experiment Station of Geneva, and the Departments of Entomology and Pathology at the College of Agriculture, at Cornell.

A fruit specialist is employed to keep close tab on bud and fruit development as well as development of insects and diseases throughout the county, and it requires his entire time in the field during the growing season.

To overcome the difficulties of differences in bud and fruit development and also any differences that might occur in various sections with insects and diseases depending upon nearness to Lake Ontario, soil, drainage, topography, etc., criterion orchards are selected as time indicators for certain recommendations.

Right Spraying and the Right Time is Necessary for Right Fruit

The Telephone Speeds Warnings

In order that so many growers might receive the recommendations in a remarkably short time, that is, if a spray is to be applied ahead of a storm period for the control of apple scab, the telephone is used as a medium of swiftness.

The names of the growers are placed on telephone relay lines and the following system is used: The fruit specialist calls one grower in each section where there is a different telephone exchange or criterion orchard. The latter in turn calls two or three others in the same locality, and each of these men to call two or three more, and so on. The men in most cases to call those on the same line so that it is not necessary for them to call central. Who is to call whom is prearranged before the first message is sent.

In forming the relay it is very important to place large dependable growers as pivot men. In sending out a recommendation to so large a number of growers, it is necessary to send to each grower a code chart, as the short mesages are more apt to be forwarded correctly. The code chart contains the kind of fruit; the number of the spray, the spray to apply, materials and amount to use, and for what applied. For example, Code A, Code No. 1, might mean to apply the delayed dormant spray to apples. Very often it is necessary to give varieties of fruit as early or late blossoming varieties. If a storm period is due within the next two or three days this is also relayed along with the spray recommendation.

Cards For Follow Up

Each telephone message is followed by a "follow up" card to serve as a check for any mistake that might occur. In case growers have no telephone they are placed on the mail service. The telephone system has a big advantage in most cases, as the growers have a day to two days of spraying in advance over the mail service.

If the time is ripe for an application and perhaps a storm period forecasted, a spray message is sent out immediately. In one case as above during 1922, a message was sent out on all relays early in the morning before the growers had begun their day's work and in less than two hours after the message had been sent the fruit specialist visited a criterion orchard about 18 miles from the office and saw 16 spray outfits in operation and three more being repaired. The six hundred or more men on the telephone relays are reached by 27 calls from the office and in several instances, 90 per cent of the men had received the message in less than two hours. During the five years that the service has been in operation in Orleans County, only a few instances have arisen where growers have failed to forward the messages promptly.

Field tests are carried out in various parts of the county to find out the value of the different applications against insects and diseases. These tests show the great value of timely applications. During 1921 and 1922 field tests have shown that codling moth injuries have been reduced 30 per cent in orchards where a special codling moth spray had been applied, compared to orchards in which the spray was not applied. Individual growers have stated that they have been saved from $50.00 up to $600.00 on just one timely spray.

In 1920, in five orchards where the sprays were timely as compared to five orchards where sprays were applied "any old time" there was a difference of 26 per cent in perfect fruit. In this case it meant a loss of over 1,500 barrels of A grade fruit, which had to be thrown in lower grades or culls.

Results during the five years of the spray service have proven that no one particular spray can be recommended year after year in scab control. Numerous cases can be cited where timely applications have saved the growers hundreds of dollars. The spray service intends to give the best up-to-date information at the proper time. The growing of high quality fruit has come to stay and the requisites for better fruit are being raised each year. It is up to every fruit grower to keep out destructive insects and diseases. This would mean a better neighborly spirit. Fruit growing has reached a point where it means to spray or get out of the game. An unsprayed orchard is a menace to any community.

Fruit growing is a big game and means fight from the word go, but when growers can pull through a season as 1922 has been, with plenty of insects and disease to fight, and come through with 80 to 90 per cent A grade fruit, it shows the fight is not so great but what it can be won.

Fruit growing is somewhat like the game of baseball, it may be somewhat easy to reach first, second and even third base, but after all its the score made at the home plate that really counts. The spray service is ever ready to pitch out the ball of information and it always finds hundreds of growers playing their positions steadily and earnestly.

Am very much pleased with the new Agriculturist. Wish you continued success.—RALPH HODGES, Otsego Co., N. Y.

Horticultural Society Meets at Poughkeepsie

NEARLY half of the 3 days' program of the annual Eastern meeting of the New York State Horticultural Society, ending February 23, at Poughkeepsie, was devoted to marketing subjects. Although there was much interest in the discussion of insect pests, diseases, and other problems of growing, the outstanding feature of this year's meeting was the evidence of real progress toward better marketing of fruits in the Hudson River sections.

There are thirteen local cooperative marketing associations now operating in the Hudson River Valley, according to Mr. A. B. Buchholz, County Agricultural Agent of Columbia County, who gave an enthusiastic account of the organization of the new Hudson River Central Cooperative Association. It will have an estimated pack of approximately 100,000 barrels next season. In discussing the costs of packing in the various local packing houses, Mr. Buchholz said it had ranged from 25 cents to 75 cents per barrel. The Red Hook Association packed their apples for 45 cents per barrel, the Ulster Park Association packed theirs for 50 cents, and the Claverack Association for 43 cents. He considered 43 cents to be a reasonably low cost. This new central association, which will correspond to the Western New York Cooperative Packing Association, will concentrate its attention on grading and packing, and will endeavor to establish uniform grading in all its plants.

Need for Better Packing Emphasized

In all the discussion of marketing, this necessity for better packing of apples in the Hudson River Valley was emphasized. The growers who are grading their apples to approved marketing standards and packing them uniformly, without misrepresentation as to their contents, were said to be so few as to be conspicuous. It was generally agreed that before any campaign for advertising Hudson River Valley fruits can be undertaken, they must be better standardized.

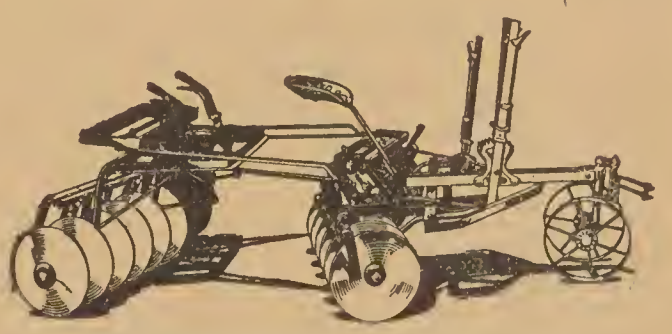
There was considerable discussion of the possibilties of putting Hudson River apples on the New York market in smaller packages than the barrel. Herschel H. Jones, marketing expert of American Agriculturist, in a sound talk on "Marketing of Hudson River Apples in New York City," advised the use of new types of packages, smaller than the bushel, rather than the copying of the Western bushel box. Experiments made in marketing apples in cartons holding twelve to sixteen apples through chain stores this last season have demonstrated, according to Mr. Jones, that entirely new outlets may be opened up for Eastern apples by use of such packages. He maintained, however, that the barrel would continue for many years to be the popular container for Eastern apples, and that the trouble was not so much with the barrel as a package, at the present time, but the improper way most shippers pack.

Other Features of the Program

Other stimulating features of the program were an address on "Advertising as a Factor in the Development of Horticulture," by C. I. Lewis, managing editor of the American Fruit Growers' Magazine; a most interesting report on the activities of the Redhook Cooperative Packing Association, by Mr. K. B. Lewis of Redhook, and a very inspiring address on "Cooperative Marketing," by Aaron Sapiro.

The aim of cooperative marketing, pointed out by Mr. Sapiro, is to stop dumping and to substitute merchandising. The "six steps of merchandising" that are fundamental to the Sapiro plan of cooperation are: (1) *Grading*, (2) Putting up in *attractive packages* that meet consumer demands, (3) Getting people to *consume* the product *regularly*, (4) *Extending markets* by longer time of sale, larger territory or by greater use; (5) *Directing the flow of the commodity* to markets so that each market gets what it can consume, and (6) *Making prices depend upon supply at point of consumption* instead of supply at point of production. Mr. Sapiro gave many clear illustrations of how these principles had contributed to the success of the big cooperative associations of the West.

McCormick-Deering Tillage Implements



The *McCormick-Deering Disk Harrow* is a simple and efficient implement, built and trussed like a steel bridge, to serve many years. You will like the details and conveniences—the dust-proof bearings and the bearing oil cups set above the frame, the built-in angle-steel weight boxes, the oscillating disk scrapers, the forecarriage, etc. Made in sizes for everybody—4 to 10 feet. All sizes can be equipped with the tandem attachment which is shown above. Double disking is popular—farmers know that it more than pays for itself.

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McCormick-Deering Tillage Implements combine the three essentials—good work, long life and convenience. They are of practical design, their construction being based on ninety years of farm and factory experience. They are priced on the basis of economical quantity production, and as an investment they offer you attractive returns.

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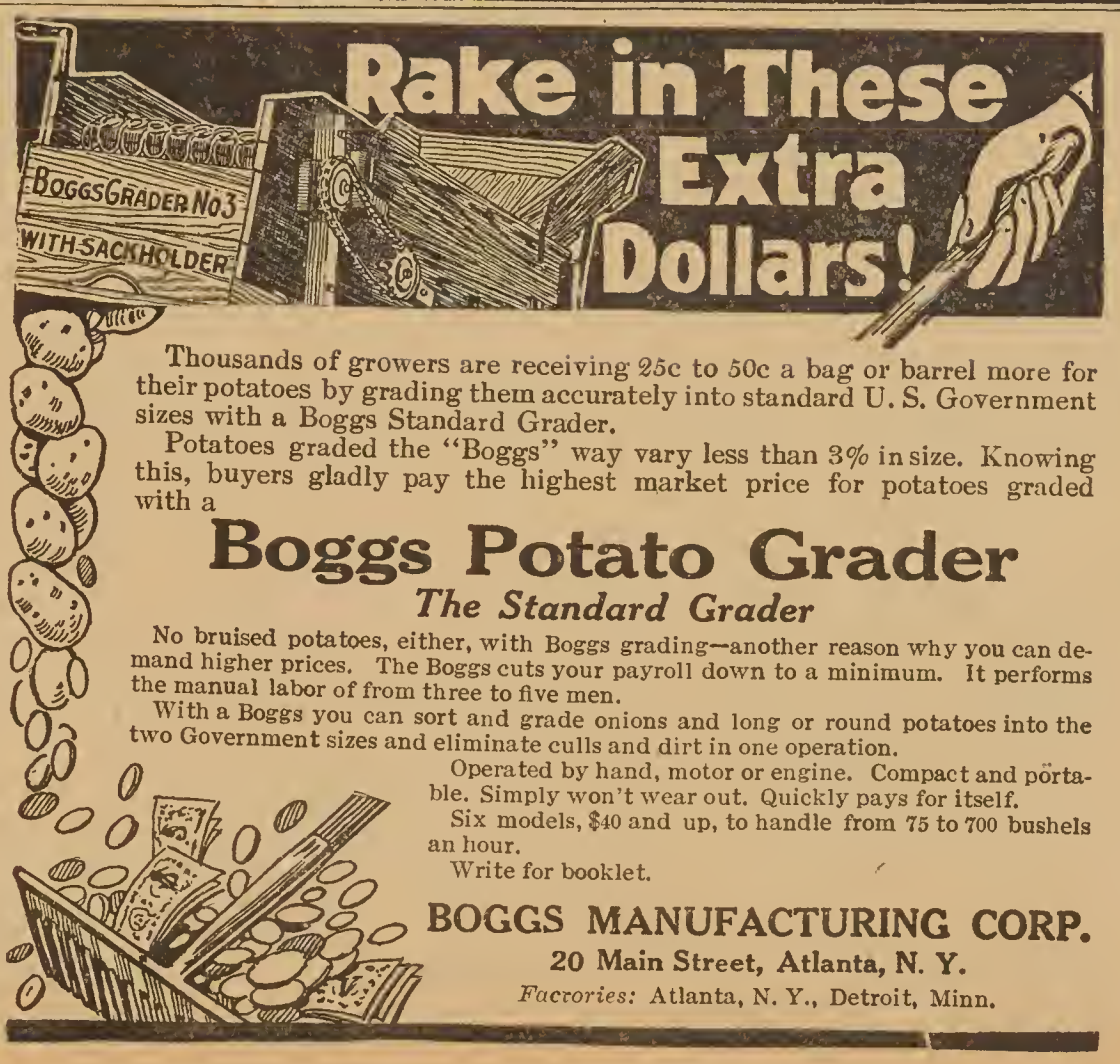

Thousands of growers are receiving 25c to 50c a bag or barrel more for their potatoes by grading them accurately into standard U. S. Government sizes with a Boggs Standard Grader.

Potatoes graded the "Boggs" way vary less than 3% in size. Knowing this, buyers gladly pay the highest market price for potatoes graded with a

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The Standard Grader

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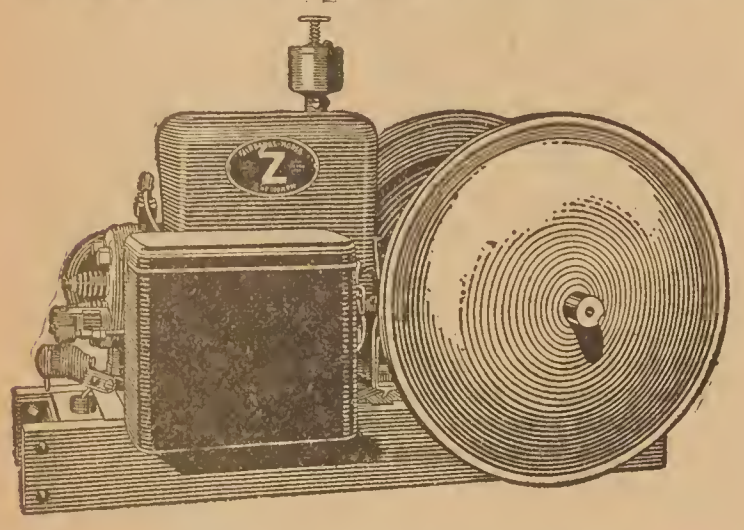

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New England Cooperation

Reviewing Results Gained by the Eastern States League

By Pres. H. A. MOSES

THE Eastern States Agricultural and Industrial League has just completed what might be considered the most successful year of its history. The activities of the Eastern States League embrace the Eastern States Farmers' Exchange, the Junior Achievement Bureau, of which the Springfield Junior Achievement Foundation is a part, and the Home Bureau. (I will touch upon the principal accomplishments of each of these organizations very briefly and more details will be reported by the directors of these bureaus.)

Over 2,200 carloads of commodities, valued at $2,020,691, an increase of 35 per cent over the previous year; the successful promotion of a 30,000-ton Dairy Feed Pool and a 10,500-ton Fertilizer Pool are the prominent features of the accomplishments of the Eastern States Farmers' Exchange for the past year. The business is not concentrated within a limited territory, but is widely distributed throughout the six New England States and Delaware. The shipments during 1922 reached approximately 700 towns located in 66 counties. The 30,000-ton Feed Pool is undoubtedly the most significant effort of the Eastern States Farmers' Exchange from several standpoints. First, the rations which the New England farmers purchased through the medium of the pool were accepted by the farmers because they were determined upon by dairy ration experts of the leading Eastern agricultural colleges who had no commercial interest in the matter. Three such formulas were decided upon —an important step toward the standardization of dairy rations and the consequent reduction of haphazard methods and overhead costs in distribution.

Effects Big Saving

Second, through the organization of a pool the Farmers' Exchange was enabled to purchase the raw materials necessary for the mixing of these rations at a time of the year when the market in these commodities was at its low point and the volume being sufficiently large to receive the most favorable consideration from the sources of supply; this means a reduction in actual cost for the farmer.

Third, as a result of the active cooperation and assistance of the business men on the directorate of the Eastern States Farmers' Exchange and the Eastern States League, the financing of this pool was made possible and the purchaser was required, merely to give his note for ten dollars on each ton of feed purchased, the New England banks financing the operation over a six months' period of time and the obligations being reduced each month by the payment on the part of the farmer for the feeds as he receives them in equal quantities each month. But for this cooperation it would have been practically impossible for individual farmers or even small groups of farmers to have engineered the proposition.

The total value of the tonnage purchased exceeded a million and a quarter dollars and the financing of this operation, made possible through the efforts of members of the directorate of the Eastern States Agricultural and Industrial League, illustrates once more the necessity of and the benefits which can be derived from a "farmer-businessman" combination — a Country-City Get-together. Eight leading New England banks cooperated in financing the pool over a six months' period of time.

While I am on the subject of finances I want to give you a brief illustration of the confidence which the business men are placing in the future of the Eastern States Farmers' Exchange. The Eastern States Farmers' Exchange was organized five years ago without any capital stock. Its existence was made possible through what was known as the Eastern States Trust. This consisted of twenty-nine men who each signed notes aggregating $43,000. These notes were deposited with a bank and furnished the basis of credit on which the Farmers' Exchange operated. This trust agreement expired day before yesterday. Forty men have renewed this trust for the next three years and have increased the amount to $72,500. Through death and other circumstances, some of these men are not the same as the original twenty-nine, but it is significant to note that among the present underwriters are included several farmers. In the work which the Eastern States League is doing with boys and girls we have also some fine results to point out. During the past year the Junior Achievement Bureau of the Eastern States League has organized 380 achievement clubs with a membership of 4,667 boys and girls.

The Home Bureau of the Eastern States League has also had a very successful year. The activities of this bureau are divided into three phases. First, the organization and promotion of Home Information Centers; second, demonstrations and lectures arranged at the Eastern States Exposition and in connection with the Home Beautiful Expositions; third, classes, lecture courses, and demonstrations, arranged and conducted for women's organizations.

Started Over Ten Years Ago

I wish to mention here that this wonderful work which we are doing throughout the Eastern States had its inception over ten years ago when we of Hampden County organized what is now known as the Hampden County Improvement League. It was the business men of this county who realized the importance of close cooperation between the industrial and agricultural interests of a community. We realize the absolute interdependence between the city and the country. I remember going down to Washington and interviewing the Secretary of Agriculture, Mr. Houston, and explaining the whole idea to him. He was very much interested and said that a great deal could be done along these lines, but he also realized the difficulties which would confront us. I am sure that every one of our members are pleased at the strides which have been made along these lines during the past ten years, and it is particularly gratifying to us of Hampden County to think that anything we have done has proved sufficiently successful to extend it to include the ten Eastern States. You will all be interested to know that we are receiving requests from all over the United States to explain just how our organization was originally formed and how we conduct it. As a matter of fact, our organization has attracted attention beyond the confines of this county, and letters requesting information from us have been received from different parts of the world. I wish at this time to acknowledge again the wonderful support which this movement has received from Mr. Theodore N. Vail, who died in 1920. Mr. Vail was one of the men most actively interested in this movement and gave me a great deal of valuable assistance and help in getting this organization under way. Mr. Vail was in this movement from the very beginning, and it was his intention when he retired as active president of the Telephone Company to devote all of his time to the junior achievement work which we are now carrying on. He was an original subscriber to all of our activities and was the first vice president of the Eastern States League.

City and Country Interdependent

The sum and substance of this whole movement, as I perceive it, is the greater realization from day to day on the part of thinking men and women that it is necessary for city and country to get together to work out their common problem for mutual good. Our movement is aimed to strengthen both industry and agriculture politically, economically, and socially. Through the League's threefold approach—that is, the Farmers' Exchange, the boys' and girls' work, and the Home Department we aim to bring about a prosperous economic and industrial situation and a more stable social condition in New England and the East.

The real beginnings come in April: "As ye sow, ye are like to reap."

Renewing Crank Case Oil

EVERY automobile driver knows that his engine operates better for a while after every time he has the crank case drained and new oil put in; but the chances are he does not have it done more than about one-fourth as often as he really should do it.

Even with the best of engines it is impossible to get such a close fit between the pistons and the cylinders that there will be no leakage of gasoline into the crank case. A gradual leakage does occur, and fuel is neither a satisfactory lubricant nor does it help the oil any at all. It simply thins it out and helps to destroy its lubricating properties. In cold weather the condition is much worse than in warm weather, because there is the tendency to use the carburetor choke, thus forcing an extra large supply of fuel into the cylinders which are already cold, and the excess fuel, instead of being burned, finds its way down into the crank case.

In summertime the crank case oil should be renewed every 1,000 miles. In winter this should be reduced to every 500 miles, depending upon the type of engine character of service and the kind of oil used. If the matter is not attended to, serious damage to the engine is likely to result. The proper time to drain the engine is when it is hot—that is, just after a run has been completed. All the oil should be removed. The practice of flushing with kerosene is questionable. It may remove some of the sediment, but operating the engine when kerosene is the lubricant is dangerous. It is better to spend a few cents on an extra quart or so of oil and use this to flush the engine, draining this oil out after it has been used. Old crank case oil which has been thoroughly filtered can be used satsfactorily also.

OIL NOT ALWAYS AT FAULT

It has come to be a sort of habit to blame the lubrication or the lubricating system for many of the troubles which afflict automobile and truck engines. One condition may develop which causes faulty lubrication, but which really results from something else. When the carburetor becomes very badly fouled with dirt, it is very difficult to adjust; the needle point may be badly worn; and the seats may be burred. At a glance it is practically impossible to adjust the carburetor when it is in such a condition, and the tendency then will be to use the choke too much, resulting in a mixture too rich for satisfactory combustion. The direct result of this will be the absorption of a large amount of fuel into the lubricating oil film, diluting it to such an extent that the crank case oil supply will also become diluted. On a certain truck run with a partly closed choke, the lubricating oil absorbed almost a gallon of gasoline in about half an hour.

The indicator on the engine may show there is plenty of oil and the operator may be led to believe that his engine is very economical in regard to lubricating oil; but the facts of the case are that the original oil has been used up, and has been replaced by gasoline working past the pistons.

Lack of Power the Result

This inadequate lubrication will result in a lack of power, and the operator will then open the throttle wider, the engine will become overheated, and the first thing we know we will have grooved pistons and rings and cylinders, and may even have burned out some bearings.

The remedy for this condition is never to use the choke except when starting the engine, and then never use it any more than necessary. If the crank case oil is drained out periodically, it will be further insurance of sucessful operation. In cold weather the crank case should be drained oftener than in warm weather, on account of the increased difficulty of combustion and the possibility of greater leakage past the pistons.

Care for the Harness — Frequent cleaning and oiling and timely repairing will save time and will add many years to the life of a set of harness. Rivets and wire are all right in an emergency in repairing a break, but they should be replaced promptly by more durable repairs, such as staples.

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Farm News From Albany

National Dairy Show Will Help Easterners

FOLLOWING Governor Smith's criticism of the Department of Farms and Markets, Senator Nathan Straus, chairman of the Committee on Agriculture, has introduced a bill in the Senate proposing reconstruction of the Department of Farms and Markets, as suggested by the governor. The bill, which was referred to the Committee on Agriculture, seeks to repeal the sections of the Farms and Markets Law relating to the Council of Farms and Markets. This council, consisting of five members, would be eliminated if the bill is enacted into law, and replaced by a single commissioner, to be appointed by the governor for a term of five years. The commissioner first appointed would go out of office December 1, 1927, under the measure. The salary is set at $15,000 a year.

Senator Straus said, in argument for this bill: "The Council of Farms and Markets as present constituted is a unique department of government. It is completely removed from the supervision and control of either the governor of the State or of the people. There is no way by which the Commissioner of Farms and Markets, entrusted with a tremendous power for good or evil over the food supply of the State, can be removed from his position. He is neither elected by the people nor appointed by an official of the government elected by the people. He is the appointee of a practically self-perpetuated and absolutely independent body, known as the Council of Farms and Markets."

* * *

A bill providing for the building of a Coliseum on the State Fair Grounds has been passed by the Legislature and signed by the governor.

* * *

Action on the bills to repeal the Mullin-Gage Law, which provides for the enforcement of prohibition, is pending in both Houses. The advocates of repeal as well as the friends of prohibition have been very busy waiting on the governor and various members of the Legislature. Both sides attended a joint hearing of the Senate and Assembly. At the present time these bills appear to be held up in committee in both Houses; both committees are "dry."

* * *

The Legislature recently passed a concurrent resolution asking Congress for modification of the Volstead Act, granting light wines and beers.

* * *

Legislation for the removal of snow from the State and county highways has been passed by the Assembly and is now pending in the Senate. This bill provides that the county shall pay one-half the expense and the State one-half when approved by the Board of Supervisors and the State Highway Commission.

* * *

Legislation advocated by the governor to consolidate many of the State departments and make the heads of these departments appointive instead of elective has passed the Senate.

* * *

Several bills have been introduced to change the election laws. Those attracting most attention provide for a direct primary to select State officers and judges. There are two of these bills. One of them is known as the "Hinman-Green Bill," which received consideration when Hughes was governor, and the other bill practically reestablishes the primary as it was previous to its repeal in 1921. Senator Swift of Erie has introduced a modification of the Hinman-Gage Bill, which would be a compromise between the direct primary and the present system.

* * *

An interesting resolution is in the Legislature to pledge the State's credit to the construction of a deep-sea ship canal from Buffalo to Albany. The object of the resolution is to offset any chance that Congress may approve a treaty with Canada for the construction of the proposed St. Lawrence Ship Canal.

* * *

A bill is before the Senate which provides for thirteen jurors in capital cases, so that in case of sickness or death the case can go on. One juror is to be eliminated by lot at the close of the case, leaving it to twelve to make a decision.

* * *

The Stapley Bill, increasing the speed limit that can be set by local ordinances from 15 to 20 miles an hour, was passed unanimously by the Assembly. Under provision of the bill, no local order could set a speed limit of less than 20 miles an hour. Advocates of the measure say that it will speed up traffic and eliminate speed traps without creating any danger. The measure now goes to the Senate.

* * *

The Lusk Repeal Bill, repealing the act which requires teachers to take the loyalty oath, has passed the Senate and is now before the Assembly.

* * *

An important bill is in the Legislature providing for the union of the New York State Experiment Station at Geneva and the New York State College of Agriculture. The bill would put the two institutions under one head, but the station would not lose its identity.

Hurrah For the Voigt Bill!

THE Voigt Filled Milk Bill has passed the Senate. It passed the House some time ago, but has been returned to the House for minor adjustments, after which it will go to the President. It is expected that the President will sign it.

The Voigt Bill prohibits interstate shipment of condensed or evaporated milk made from skim milk and oil substitutes, such as cottonseed oil and coconut oil.

Dairy and health organizations have left no stone unturned to get this legislation. It means millions in increased markets for butter fat for farmers and much to the health of the consumer, and is probably the most important farm legislation passed in years. Passage of the Voigt Bill is a great demonstration of the power of cooperation.—The Editors.

NATIONAL DAIRY SHOW AT SYRACUSE

W. E. SKINNER

I have just received a telegram from J. D. Barnum, of the Syracuse "Post-Standard," announcing that the New York Legislature has passed a bill providing for the construction of a Coliseum on the State Fair Grounds at Syracuse, in accordance with promises made by the committee that represented that city at the annual meeting when the 1923 National Dairy Show was invited to go to New York next October. The message also states that Governor Smith has signed the bill.

The rapidity with which the State solons passed this bill making an appropriation for the construction of the Coliseum to house the exposition comfortably is a very good example of how the people of New York feel with regard to the coming of the exposition.

Every State agricultural organization was represented and a great many individual farmers attended the hearings on the bill at Albany, so that no misunderstandings could occur in the minds of the lawmakers as to the necessity of holding the National Dairy Exposition in the East this year. This of itself has already had a tremendous influence upon the agricultural programs for the year in the Eastern States, so that the work our show can do for dairying this year will be just as great as we of the industry care to make it.

If the enthusiasm of the East is met with like enthusiasm from the dairy industry in all parts of the country,

$7.50 After 30 Days Free Trial

The Belgian Melotte Separator—with the wonderful Self-Balancing Bowl. No other like it.

30 days' free trial—then, if satisfied, only $7.50 and a few easy payments—AND—the wonderful Belgian Melotte Separator is YOURS.

No Money Down!
Catalog tells all—*write.*

Caution! U. S. Bulletin 201 shows that vibration of the bowl causes cream waste! The Melotte bowl is *self-balancing.* Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. *The Melotte has won 25 Grand and International Prizes.*

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No Buckles To Tear
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INVESTIGATE Walsh no-buckle harness before buying harness. Let me send this wonderful harness on 30 days' free trial. Outwears buckle harness because it has no buckles to tear straps, no friction rings to wear them, no holes in straps to weaken them. Highest quality of leather.
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$3.10 per 100 Sq. Ft.

Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only $3.10 per 100 sq. ft. painted. Galvanized, only $4.30. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money.

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5 lbs. $1.75; 10 lbs. $3; 20 lbs. $5. Smoking, 5 lbs. $1.25; 10 lbs. $2; 20 lbs. $3.50. Try it at our risk; money refunded if tobacco returned. COOPERATIVE TOBACCO GROWERS, SEDALIA, KY.

this year will indeed witness "the world's greatest dairy show." With complete and adequate facilities provided for the holding of the exposition, and with plenty of hotel accommodations insuring comfort for everyone, all dairymen can now set their eyes on the East for a great year's work and a revival of our oldest dairy section that will be felt in the world's progress.

NORTHERN NEW YORK NOTES

CHARLES L. STILES

The extremely cold weather of the past few days has permitted of quite active operation in the way of putting up the season's ice supply and large numbers of men and teams have been engaged in the work. The Lowville Cold Storage Company, one of the largest cheese-storage plants in the county, has finished filling their large ice house. Farmers are very busy getting up their individual supply.

Large quantities of wood and hardwood logs are being hauled into town, and with the price of coal at such a high figure and rather scarce at that, it met with a ready sale at $4 to $4.50 per cord: the logs mostly are being hauled to the Haberer furniture plant to be used by them for manufacturing purposes.

Not much real estate changing hands here this winter, due no doubt to the fact that prices for farm products are so low in price, with the outlook for the future coming none too promising, that not many deals are being made.

The State Nursery that is located near this village is in receipt of large orders for seedlings to be shipped to all parts of the State for reforestation purposes. It is with one exception the largest tree nursery located in New York State.

Farm help is now being engaged for the coming season, which is usually about March 1 in this locality. Farm help seems to be rather scarce and hard to engage at any figure. Quantities of baled hay are being delivered here at prices ranging from $13 to $15 per ton, with loose hay bringing an average price of $12 per ton.

Not as many farm meetings are being held here in Lewis County as in former years, though some are scheduled for the week centering on the middle of February. On the whole, the situation seems rather quiet, with farmers in an optimistic frame of mind.

NEW YORK COUNTY NOTES

Essex Co.—We have had a tremendous amount of snow and a lot of zero weather for practically two months. We have had a hard time to keep some of the country roads open. The shortage of coal has created a great demand for wood. It is reported that there have been shipments of wood from this county to Philadelphia. Ice houses are being rapidly filled. The quality of the ice is very good in spite of the great depth of snow. Potatoes are bringing from $1 to $1.50 per bushel, veal 15 cents, eggs 50 cents a dozen. Cattle are wintering well.—M. E. B.

Clinton Co.—Ice cutting is on. Farmers are busy filling milk-station ice houses first, then their own. Having lovely winter weather, nice sleighing, not much lumbering as yet. Butter, potatoes, and eggs all seem to hold the 60-cent mark. Hay, $13 per ton. A constant reader of your valuable paper.—T. E. D.

St. Lawrence Co.—The weather has been clear, but cold. Farmers have about finished harvesting their ice, which is of good quality. Few farmers are withdrawing from the pool.—H. S. H.

Broome Co.—Because of the scarcity of help, Edward F. Vincent has sold most of his dairy of choice full-blood and grade Guernseys at private sale.

Deposit Branch of the Dairymens' League Cooperative Association has voted to hold monthly meetings. E. W. Rosencrants and S. C. Sliter have been reelected directors.

One of the few remaining pieces of pine timber in Windsor has been bought of Benjamin King by George Manwarren, who has a gang of men at work now and will at once set up a mill on the King farm to saw the trees into lumber.— E. L. V.

The Eyes of The World Are On

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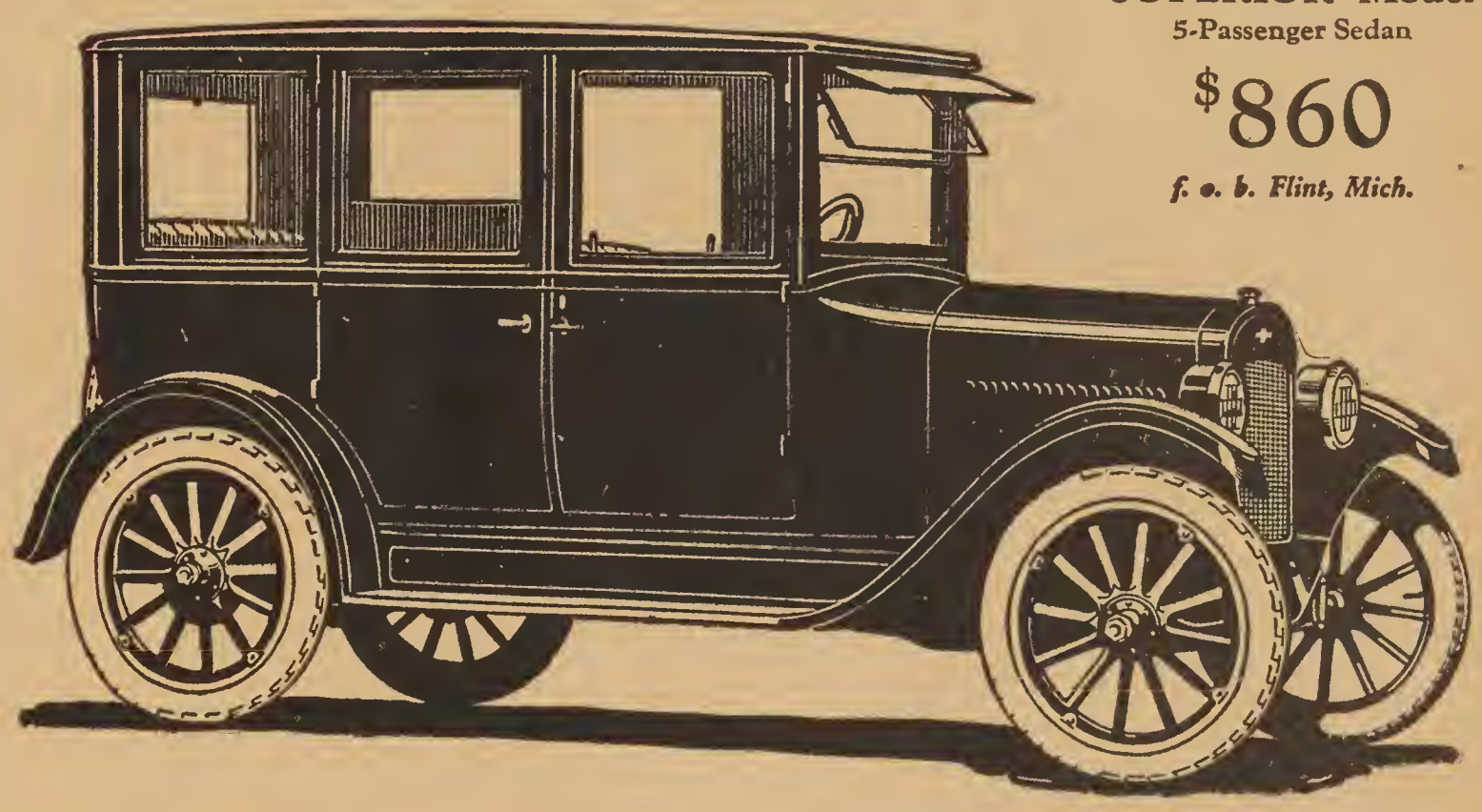
for Economical Transportation



SUPERIOR Model
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$860
f. o. b. Flint, Mich.

Holds First Place Among All Show Cars in Number of 1922 Sales

During 1922 the public bought more than 50% more Chevrolets than of any other fully equipped car, giving Chevrolet first place in number of cars sold among all cars exhibited at the 1923 N. A. C. C. Shows.

The remarkable rise of Chevrolet during the last twelve months has proved that the Chevrolet Motor Company has correctly gauged the shift of public sentiment towards the most economical unit of transportation that also meets modern requirements as to quality.

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The Triplex Springs (Patented) absorb shock and side-sway. The Overland motor returns twenty-five miles and more to the gallon of gasoline. Timken and New Departure bearings are liberally used in front and rear axles. And the good looks of the New Overland commend it everywhere. The hood is higher. The lines are longer. The seats are lower.

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KENTUCKY NATURAL LEAF TOBACCO
Chewing, 5 pounds, $1.75; 10 pounds, $3.00; 20 pounds, $5.25. **Smoking,** 5 pounds, $1.25; 10 pounds, $2.00. Send no money. Pay when received. **FARMERS' CO-OPERATIVE TOBACCO UNION, Paducah, Ky.**

Glass Cloth a transparent waterproof fabric as efficient as glass for hotbeds, poultry houses, etc. Sample 3x9 ft. P. P. $1. Cat. Free. **TURNER BROS., Desk 25, Bladen, Neb.**

Dairymen Standing Firm

Farm News From New Jersey and Pennsylvania

ALTHOUGH final figures were not available by the fourth week in February, it appears that the members of the Dairymen's League Cooperative Association in northern Jersey and eastern Pennsylvanian have for the most part held firm to the cooperative pooling plan of their association. At the close of the third week in February about eighty dairy withdrawals were reported from Sussex, Warren, and Hunterdon Counties in New Jersey and the two adjacent counties across the Delaware River in Pennsylvania.

The canning crops men of southern and central New Jersey are still undecided on their method for selling this season's crops. The tomato men, particularly, are undecided whether to sell on the open market or to sign contracts. It is reported that some canners have offered a flat contract price of $15 per ton for tomatoes.

Marketing Officials Meet

Representatives from New York, Pennsylvania, West Virginia, Maryland, and Virginia gathered with the staff of the New Jersey State Bureau of Markets for the Middle Atlantic Sectional Conference of the National Association of State Marketing Officials at Trenton, N. J., February 27 and 28. An interesting program was followed by the conference, in which the various States reported their marketing problems on fruit, vegetables, live stock, and farm products.

Considerable interest centered on the discussion of market reporting. Representatives of New Jersey's Women's Clubs expressed their appreciation of retail prices reported by the New Jersey State Bureau of Markets and their satisfaction with the method of reporting which has been built up over a four-year period. On the other hand, Pennsylvania reported unsatisfactory results with its retail-price reporting plan, upon which the Pennsylvania State Bureau has been working for three years. It was agreed that retail price reports served as an inspiration and educational help for consumers and women's organizations, and as such were highly desirable despite the technical errors incident to the service.

Jersey Legislature Has Full Calendar

By the last week in February the New Jersey Legislature had not finally acted upon any of the variety of farm measures before it, such as the bill for a new cooperative law, which has passed both the Senate and Assembly and is back in those bodies for further amendment. The date for adjournment of the Legislature was previously set for March 15. With a crowded calendar, however, and too much important business to be completed during the first two weeks of March, it is expected that the adjournment date will be postponed.

Several bills of considerable importance to farmers are now pending in the Senate other than those previously reported in these columns during the last six weeks. One of the measures is an amendment to the Insurance Law, which would permit insurance companies, to be organized by farmers, so that the company could combine different kinds of insurance, such as liability, labor, and accident insurance. At this date the chances are considered to be good for its passage. Another bill would make it a misdemeanor to influence a member of a cooperative association to break his marketing contract or agreement. It would also make it a misdemeanor for him to give false statements on the finances or business of cooperative associations.

Considerable interest has centered in another bill pending in the Senate which would give back to the various counties, State money which was received from the school tax, the railroad tax, and the school fund. This would be on the basis of the teachers employed and the days' attendance of all the pupils in the school. At the present time the distribution of school money is on the basis of ratables. Another act would require the financial officers of New Jersey townships to publish, as prescribed by law, a true statement of the financial condition of the township committee. The Teachers' Tenure of Office repeal, previously reported, has been superseded by an amendment which would give five years instead of three years as the period of teaching before the Tenure of Office provision becomes effective.—W. H. BULLOCK.

CENTRAL PENNSYLVANIA NOTES

J. N. GLOVER

The directors of the Union County Fair Association, with the directors of the Milton Fair, have formed a circuit beginning with the Altoona Fair on August 14, the Lewistown Fair on August 21, Milton on August 28, and Union County on September 4, making four continuous weeks in this section of the State.

Several carloads of Michigan certified seed potatoes will be sold to growers in Union County through some club or organization. A Poland China Hog Club has been organized at Mifflinburg, and clubs of other breeds are likely to be organized this year. It is a mistake to have clubs of many breeds in a small county when one or two breeds only should be boosted, for in "union there is strength." This same mistake has been made in this State of trying to keep too many breeds of cows for milk, instead of agreeing on one or two good breeds, like Holstein, Brown Swiss, Guernsey, or Aryshire, and breeding only these for milk.

Wheat has been covered with snow for a few weeks, which is a great protection to it, since it made a very scanty growth for winter on account of dry weather. Recent rains and melting snows have helped the water situation.

More carloads of coal are being shipped in to relieve the fuel condition, which is getting serious.

Farm work is at a standstill, except a few men who are hauling home wood for fuel or are hauling manure to cornfields.

With advance in the prices for corn and wheat, farmers are feeling that their efforts last year in growing grain will bring something of a labor income. Tobacco growing in Snyder County will likely increase next year, as they find they can grow a heavy crop of tobacco along the river, making them more and more money than other crops.

Public sales have begun already, and stock is bringing good prices, except horses, which will sell better later when needed.

Wheat is moving at $1.35 now and corn at 70 cents in ear, and there is a fair demand for both grains at these prices, though some farmers are holding for $1.50 for wheat and 75 cents for corn, as both grains cost the latter prices to grow them.

There are more farms for rent in Buffalo Valley this time of the year than ever has been known to exist at any time in its history.

450,000 TREES
200 varieties. Also Grapes, Small Fruits, etc. Best rooted stock. Genuine. Cheap. 2 sample currants mailed for 20c. Descriptive price list free. **LEWIS ROESCH, Box F, Fredonia, N.Y.**

STRAWBERRY—DEWBERRY The Big Money Crops
Grape Vines, Privet Hedge and other *Plants* that *Please.* Asparagus Seed, WASHINGTON, and standard varieties; Cantaloupe, Tomato and other *Seed* that *Yields.*
SPECIAL: Asparagus Crates, and waterproof linings. *Catalog Free.*
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GROWER Strawberry Plants, Raspberries, Blackberry, Gooseberry, Currant, Grapes, Asparagus, Rhubarb, Trees—Fruit, Nut, Shade, Ornamental. Flowers—Bulbs, Vines, Roses, Shrubbery, etc.
Write for prices and booklet how to grow everything from the nursery.
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Peach Trees 20c, Apple Trees 25c
each Postpaid. Send for 1923 Catalog of Fruit Trees, Plants. Guaranteed Garden, Flower and Farm Seeds.
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STRAWBERRY PLANTS, $3.00 per 100. History and valuable Illustrated book free. You will learn. Add. Mayers Plant Nursery, Merrill, Mich.

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A new way of feeding is surprising the world's largest poultry raisers

Remarkable results are being observed in feeding yeast to poultry

Greater egg fertility and hatchability —increased vitality and virility in laying stock — less mortality among chicks.

THESE are the surprising results obtained by some of the world's largest hatcheries—and by other raisers in many parts of the country—in feeding Fleischmann's Pure Dry Yeast to poultry.

For several years the world has known of the wonderful value of Fleischmann's Yeast for man. And now, after many experiments, the Fleischmann Company has developed a *dry yeast for stock and poultry.*

Here, briefly, are some of the results:

A test in one of the world's largest hatcheries showed an increase of 23% in fertility. Only 5% of eggs from yeast-fed hens were infertile, as against 28% of eggs from non-yeast-fed hens.

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In one flock fed on Fleischmann's Pure Dry Yeast, whose age at present ranges from 2 to 9 weeks, the loss has been only 345 out of 6000—less than 6%. "And for general development," writes the manager, "they surpass anything I have ever raised."

Further tests are being conducted. We shall publish full details from time to time. But we want you to try Fleischmann's Pure Dry Yeast yourself *now*—to prove for yourself its unique value in your poultry yard.

We are prepared to make immediate deliveries of Fleischmann's Pure Dry Yeast in 2½ pound cans, direct to you. One can should demonstrate its power in securing more fertile eggs, with fewer chicks dying in the shell —stronger, more vigorous chicks—and faster-growing, huskier birds. With each can we will send a booklet containing complete instructions for the care and feeding of chicks and laying hens.

Pin a $2 bill or money order to the coupon below and mail it today! It will bring you a big 2½ pound can of Fleischmann's Pure Dry Yeast — enough to feed 10 birds for nearly 4 months. We pay the postage.

Costs 2c a tablespoonful

One tablespoonful daily to every 10 hens or 50 baby chicks. Each can contains 117 tablespoonfuls or 4 months' supply for 10 hens.

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Enclosed find two dollars ($2.00). Please send me a 2½ pound can of Fleischmann's Pure Dry Yeast by prepaid parcel post.

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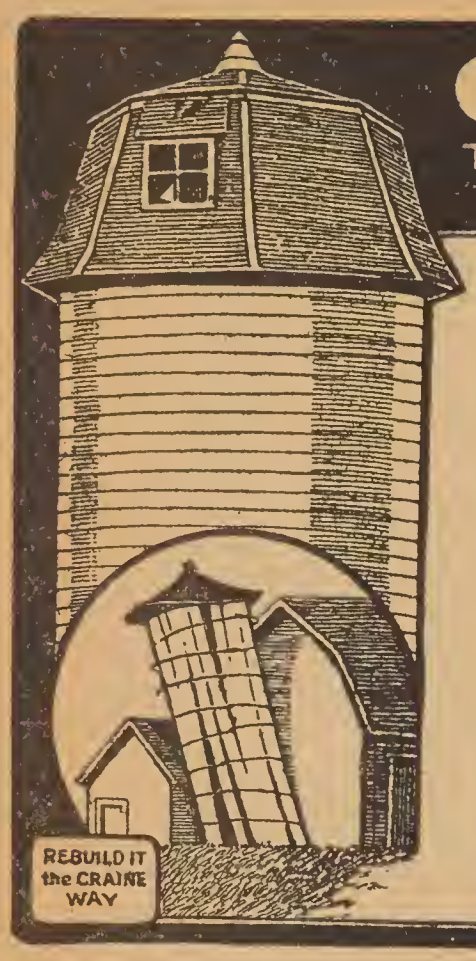
Forces rapid growth—1 lb. per month. Two-pound broilers in 8 weeks.



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A Craine Silo gives 3-wall protection against wind and weather. The strong stave wall surrounded by Crainelox Spiral Covering with thick wall of Silafelt between, insures perfect silage and giant strength at every square inch of silo.

Craine Silos are different from any silo you see. Their smooth exterior is unmarred by hoops or lugs. They are as strong as they are beautiful. When you choose the Craine you decide on permanent satisfaction—*the lowest yearly cost for silage making and keeping.*

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Throw the bundles from the wagon—one, two, even three at a time. The improved Self-feed of the 1923 Papec will take care of them. It saves a man at the feed table, yet handles more corn than ever.

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PAPEC
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At A New Low Price

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Thousands in Use giving splendid satisfaction justifies investigating our wonderful offer: **a brand new, well made,** easy running, easily cleaned, perfect skimming separator **only $24.95. Skims warm or cold** *milk closely.* Makes thick or thin cream. Different from picture, which illustrates our low priced, large capacity machines. **Bowl is a sanitary marvel** and embodies all our latest improvements. **Our Absolute Guarantee Protects you.** Besides wonderfully low prices and generous trial terms, our offer includes our—

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Whether dairy is large or small, do not fail to get our great offer. Our richly illustrated catalog, **sent free** on request, is a most complete, elaborate and interesting book on cream separators. **Western orders filled from Western points.** Write today for catalog and **see** our big money saving proposition.

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Green Mountain SILO
Will it Stand? YES
WRITE FOR CIRCULAR
THE CREAMERY PACKAGE MFG. CO.
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Is The Herd Plan Sound?

Questions About The Herd Plan in New York

By H. E. BABCOCK

IT is my purpose in this article to ask some questions relative to the soundness of the so-called accredited herd plan and the methods under which it is being put into effect in New York State. Lest I be misunderstood and thought to have some personal grievance, I want to state in the beginning that I have had tuberculin tested cattle for several years and during the last two years have had herds under the accredited herd plan. I have always been accorded every courtesy by the state and federal officials in charge of accredited herd work. I have reciprocated in a small degree by working to get legislative appropriations to carry on the work. I am convinced that practically everyone connected either at Washington or Albany with the supervision of accredited herd work is sincerely trying to do his best. The questions which I raise, therefore, have no personal animus or desires as a basis. They are simply raised that we may think more carefully about a proposition which is fundamental to the agricultural welfare.

The accredited herd plan was originally intended to provide for three-cornered cooperation between the officials of the Bureau of Animal Industry, the livestock sanitary officials of the various states, and livestock owners.

It was based on an agreement between the federal representatives and the state representatives, who in turn entered into a written contract with the cattle owner, whereby he agreed "to submit his entire herd to a tuberculin test; to slaughter, under inspection, any animals showing clinical or physical evidence of tuberculosis; to remove all reacting animals from the herd; to use reacting bulls under precaution; to heat milk and milk products from reacting cows to 150 degrees Fahrenheit for at least twenty minutes before using for any purpose whatever; to remove all calves from reacting cows at birth and maintain such calves on premises free from infection of tuberculosis and feed them only on milk from cows which have passed a satisfactory tuberculin test, or upon pasteurized milk (from reactors); to allow no cattle to associate with the herd, which have not passed two tuberculin tests approved by the federal or state officials; and to thoroughly disinfect, premises where tuberculous cattle have been harbored."

The Accredited Herd Certificate

If after operating under such a plan, a cattle owner's herd passes two clean annual, or three semi-annual tuberculin tests, he is issued a so-called accredited herd certificate. With such a certificate he is permitted to ship his cattle inter-state, without further tuberculin test, for a period of one year, such permission, however, being subject to the regulations of the state of destination.

Because breeders of purebred cattle usually depend on sales out of the state for a good part of their revenue, it can be seen that an accredited herd certificate constitutes a real asset to the owner of a purebred herd.

The New York State Farms and Markets Law provides for the payment of indemnities for reacting animals by the state in amounts not to exceed $112.50 per head for registered purebred animals and $67.50 per head for grade animals. The United States Government, when appropriations are available, pays one-third of the difference between the appraised value and the salvage or proceeds from the salable parts, (usually hide and carcass), in amounts not to exceed $50 per head for registered purebred animals and $25 per head for grade animals. In no case may the owner receive more than the appraised value of an animal.

	Appraisal Value	Salvage	State Indemnity	Federal Indemnity
Grade Dairy Cow.....	$90.00	$20.00	$67.50	$2.50
Grade Dairy Cow.....	50.00	20.00	30.00	.....
Beef Animal	30.00	30.00	.....	.....
Purebred reg dairy cow..	200.00	25.00	112.50	50.00
Purebred reg dairy cow..	150.00	20.00	112.50	17.50
Purebred reg dairy cow..	100.00	20.00	80.00	.....

According to the records of the Department of Farms and Markets, the first test under the accredited herd plan in the State of New York was made May 27-28, 1918. The work was carried on until 1919 without the owners receiving federal indemnity for reacting cattle. In the Spring of 1919, the legislature amended the New York State law and a working agreement was signed allowing breeders to receive federal indemnity for reacting animals. In December, 1919, a further amendment was made permitting owners of grade animals to enjoy the benefits of the plan.

The first accredited herd certificate was issued May 15, 1919, at which time 123 herds were under supervision.

Work Makes Rapid Progress

From its inauguration until the present time the work of applying the accredited herd plan has made rapid progress in New York State. In a report recently issued by the Department of Farms and Markets at Albany, the following figures appear, covering a period from July 1, 1918, to December 1, 1922.

	Once Tested Clean Herd	Once Tested Clean Cattle	Accredited Herd	Accredited Cattle
July 1, 1918....	1	93	.....	.....
January 1, 1919.	15	287	.....	.....
July 1, 1919....	64	527	1	19
January 1, 1920.	113	1,257	16	157
July 1, 1920....	228	2,704	45	501
January 1, 1921.	270	8,205	67	1,620
July 1, 1921....	2,128	30,920	123	3,797
January 1, 1922.	2,692	37,357	289	6,246
July 1, 1922....	4,909	58,017	685	14,278
December 1, 1922	8,989	103,644	1,030	19,077

From Individual to Area Plan

When the accredited herd plan was first made available, as might be expected it was taken advantage of by individuals scattered throughout the whole state. For the most part these constituted progressive purebred breeders, some of whom had been battling the disease for years and other of whom were interested because of the possibility of securing an accredited herd certificate with a minimum of risk. Others early saw the opportunity to dispose of herds which they knew to be tubercular to the state for the indemnity money.

Of late, under the leadership of the Federal Bureau of Animal Industry officials, there has been introduced the so-called area plan of cooperation under which the applications of scattered individuals are ignored in favor of concentrated work with cattle owners on the basis of a township or a county.

At the present time, owing to the activities of federal officials and to the support of those whom they have enlisted within the state, the trend is toward a greater and greater employment of so-called area drives, in an attempt to wipe out tuberculosis within a given section.

While I have not attempted to go into detail, I believe what I have written sums up the essentials of the situation relative to the application of the accredited herd plan as it stands today, and in connection with the same I would like to ask a few pertinent questions for readers of the American Agriculturist to think about.

The Matter of Indemnities

The state already owes to owners of cattle which have reacted and been slaughtered under the test, close to two million dollars. Should this back indemnity which now stands against the state at 6 per cent be appropriated by the present legislature and enough additional funds appropriated to pay for indemnities as they are incurred in the state?

It would appear to be bad business from the point of view of the owners and the state to have the payment of indemnities behind, anywhere from one, to two years. The owner does not have the use of his money and under the law, after the claim is established, the state has to pay the owner 6 per cent on the amount thereof. This would seem to be expensive money for the state to borrow.

Is the Area Plan Sound?

As stated above, due in my opinion largely to the leadership of the U. S. Bureau of Animal Industry authorities, the present tendency is to use more and more the so-called area of testing, under which an attempt is made to test all of the cattle in a given area with

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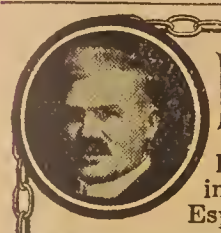

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the object of rendering this area free from tubercolosis. Is this the soundest plan under which to proceed?

Obviously under it the accredited herd plan cannot be made available to all the cattle owners of the state. Are there not discriminating and careful cattle owners who possess both the desire and ability to eradicate tuberculosis from their herds and keep them clean who, under the area system, do not get the cooperation that is their right? And are there not a good many men in some of the areas cleaned up who will never keep a clean herd unless they do so by accident? Does the creation of clean areas, provided they can be kept clean, counterbalance the maximum cooperation that might be extended to cattle owners who possess every qualification to give the state and federal governments the most desirable kind of cooperation in combating the disease.

Where are We to Look for Replacements?

The figures show that an immense number of cattle are being slaughtered. They show that in some areas a good third of the cattle react. Where these areas lie in dairy districts which derive their whole income from milk and its products, the owners obviously cannot get along without replacing their losses. Where are clean replacements to come from?

Is there not danger, particularly in some areas, of removing the tuberculous cattle before others are available to take their place?

Are Sanitary Measures Sufficiently Emphasized?

Most of the reports we read, speak of the great value of testing and the rapidity with which it has developed. Has the education of the cattle owner relative to the nature of bovine tuberculosis and its control preceded or even kept pace with the testing that has been done?

When reactors are found on farms, are the premises in all cases thoroughly cleaned up and disinfected? Are sufficient precautions being taken to prevent the re-introduction of tuberculosis animals into tested herds? Or is the work demanding so much of the men who are handling it that these real fundamentals are in danger of being slighted in favor of the more spectacular testing and slaughtering of reactors?

Is Testing on an Economic Basis

In a previous article I have stated that I believe men test when it pays. The more I observe the tuberculin testing of cattle, the more I am convinced of the truth of this statement. I know men who have tested and thereby developed clean herds of purebreds who are reaping a financial reward today. I know men who have tested grade herds and are selling their milk for more money. I also know men who have tested their herds and sold them to the state by the indemnity route. With them it paid also.

If a proposition pays, a man ought to be willing to pay for it. Certainly he will not appreciate a free tuberculin test as much as one he pays for. The tendency, however, is more and more toward free testing. Is this a sound economic proposition? Until bovine tuberculosis eradication is put on a health basis, is it not fair to inquire what justification there is for free testing? Will it not in the long run retard sound progress?

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Mar. 22—Levi P. Moyer's Holstein Dispersal, Pipersville, Pa.
Mar. 24—H. R. Remley's Holstein Sale, Wattsontown, Pa.
Apr. 25—E. Washburn & Son Dispersal of Holsteins, Wolcott, N. Y.
May 8-9—New York State Holstein Spring Sale, N. Y. Holstein-Friesian Association, Hornell, N. Y.

The Neck of the Bottle

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Just think of a two billion dollar industry, the largest and most profitable branch of agriculture, operating on such a slow and costly basis. No other industry or branch of farming at all comparable is so handicapped. Hand milking is the limiting factor in dairy farming; it is "the neck of the bottle"—because when milking can be done faster there is more time for other farm work.

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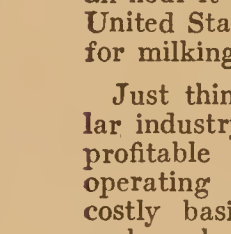

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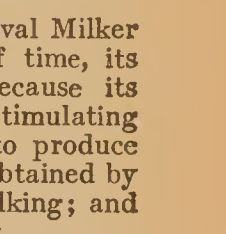

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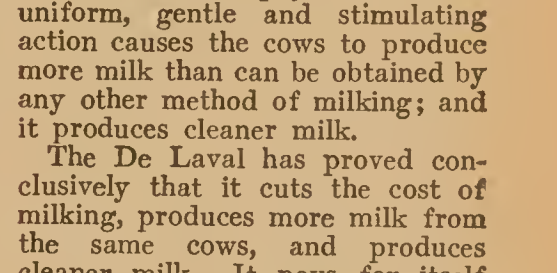

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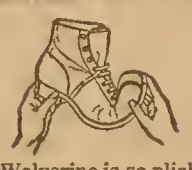

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Give The Hen a Rest

Dormant Period as Necessary to Poultry as to Cows

By O. W. MAPES

THE old saying that "there is nothing new under the sun" does not seem to apply in these days of heavier than air flying machines, wireless telegraphy, and artificial lights in the hen house. It may be true in the case of matter but does not seem to apply in the case of ideas.

Most students of the problem of increased egg production seem to be taking it for granted that the same rules which apply in the improvement of dairy cows by breeding from pedigreed cows of known high production apply equally as well in the case of egg production, but I feel disposed to challenge this view.

My belief is that the production of a first egg by a pullet, or by a hen whose egg producing organs have been dormant for a time, due to broodiness or other cause, is more nearly comparable to a heifer's or other mammal's first menstrual period. When once started they continue at regular stated intervals over which we have little or no control, provided the food supplied contains all the elements needed to sustain the bodily functions and produce the eggs, in such amounts as can be used without clogging up the system with too much of one or more elements.

Makes "the Hen Man," say "crowd them for nine months and then rest them for three"

To my mind the question of determining these food requirements for the laying hen is of vastly more importance than the question of heredity.

It seems to me that some of the effort now being devoted to trap-nesting individuals in our egg laying contests, etc., might better be diverted to finding out more about how to feed and care for a flock so that once a pullet or hen starts to lay she will be able to keep it up with the regularity of the menstrual period in mammals.

I have had opportunity during recent months to observe the performance of different flocks along these lines that have proved quite interesting. The answers have especial value because they have all been flocks of about 200 birds each, instead of the usual small experimental flock of five to twenty.

I can well remember how sixty years ago on my father's farm, as well as on his neighbors' farms, it was customary to winter a lot of yearling and two year old heifers on straw, dry corn stalks and dry hay. The result was that when spring came the heifers were far from thrifty as most of us now think of a thrifty heifer.

Those heifers almost invariably bred for the first time in June or July and freshened the next March or April. If one or more did not come in heat at that time as a yearling, so as to freshen as a two year old she usually waited another year before menstruation set in and did not freshen for the first time until three years old.

What has this to do you will ask with egg production.

Those straw-fed heifers were low in vitality as spring approached but when turned out on flush pasture for a month or two, there was a quickening of all their bodily powers, including sexual powers, and by June or July their menstrual periods started into action as a necessary prelude to milk production.

The use of lights in the hen house has sprung a new set of problems on poultry keepers that cry out for solution.

Will it pay to use lights during late summer and fall? How long a rest for moulting should be given before resuming lights? How to get back from lights to natural daylight without disaster and how to avoid a winter or spring moult accompanied by a slump in egg production are but samples.

I had several flocks on which I used lights during August and September, and some had no lights until November. When resuming lights at different times, results were far from satisfactory.

In two flocks only about 15 per cent to 20 per cent of the hens laid. These have kept it up now for two months or more but few new recruits at this writing. In another flock about half of the flock started to lay and have continued to do so, but the reminder are still dormant at this writing, February 7th. Another flock of 202 hens, two and three years old, were given lights January 9th, but laid no eggs until January 18th, when they started with two eggs a day and rapidlly increased until on February 4th, they laid 105 eggs, a yield of over 50 per cent.

A companion flock of 202 hens of same age were laying 5 or 6 eggs a day on January 9th, when lights were installed, and on February 4th, they laid 110 eggs. These latter two flocks you notice practically all began to lay within about three weeks after lights were installed, while only a portion of the other flocks responded. What was the reason?

Another thing of interest in connection with these latter two flocks is that we had an expert from our Poultry Project organization come and help us pick out the poor birds or culls from this lot, in order to use the good ones as breeders.

When he got through we had the two flocks of 202 hens each and a pen of culls numbering 166. It is of interest to note that this pen of poor birds or culls is now laying a daily yield of 45 per cent, almost as much as the others. All have had the same care and feed.

Looking back to see how their treatment differed from the first three pens mentioned I find this difference.

The first three pens mentioned, I find, had the regular laying mash all through the time when they were recuperating from the moult, while the latter three pens had a ration from which all meat scrap, milk powder and alfalfa meal had been eliminated. There was practically no change in feed when lights were installed in the first three pens, but the meat scrap, milk powder and alfalfa meal was added to the dry mash for the latter three pens at the same time lights were installed, making a change as pronounced as the change from dry straw, hay and corn stalks to June pasture, in the case of the heifers mentioned, with the same results.

It is comparatively easy to secure an egg yield of 50 per cent in January from pullets, but when 500 to 600 old

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TOBACCO GROWERS' UNION, Murray, Ky.

hens increase from zero to 50 per cent in a period of 17 days, "There is a reason" as the Postum advertisement says.

My grandson William, whose mother lives just over the line fence from my barn, has a flock of nearly 300 pullets, all in one flock, in an old cow barn, with nothing but kerosene lanterns for lights. They laid 4,425 eggs in the 31 days of January, an average daily yield of just about 50 per cent. The reports from the egg laying contest at Storrs, Conn., show that their 1,000 selected pullets are struggling along between 34 per cent and 37 per cent. I mention this because William's pullets received the same treatment that my last three pens had. He cut out meat and milk from their mash during the months of September and October in order to hold them back from laying a lot of small eggs, and in November when lights were supplied, re-introduced the meat and milk as well as some alfalfa meal made from exceptionally fine early cut alfalfa hay.

TREATING LIVER TROUBLES OF POULTRY

The combs and wattles of our hens and roosters turn black. They eat very well, but they seem to droop. Several have died. We feed them corn, wheat and oats. Would you kindly tell us what is wrong with them and how to treat them?—A. B., Chautauqua County, N. Y.

Undoubtedly your birds are affected by some liver disease. This is a very common complaint of poultrymen. These same symptoms are characteristic of blackhead, congestion of the lungs and pneumonia. However, it is questionable if the disease is any other than that previously mentioned.

The blacking of the combs is due to the excessive amount of blood that is forced into the head resulting from congestion of the liver. A post-mortem examination will show that the liver is either very dark and enlarged, containing a large amount of blood, being easily crushed due to the abnormal condition of the tissues; or in other cases, it may be shown by the more or less complete disintegration and degeneration of the liver and accumulation of fatty deposits in its place. Very often the gall bladder will be observed to have become greatly enlarged.

Liver trouble is due to several factors, such as lack of exercise; poorly balanced ration, carrying too much of the carbohydrate elements; or the accessibility of the birds to semi-decayed or mouldy food, which causes an unbalanced digestive condition.

A Good Remedy for the Flock

When the condition of the birds indicates, through the discoloration of the head, that the liver is out of condition, it has been found most advisable by investigators and experienced poultry men to administer to the entire flock a dose of epsom salt, using about one pound to every hundred birds. A perfectly balanced mash is placed before the birds, to which there has been added about 5 per cent of charcoal. Green food plays a very important part in counteracting liver disorders. Green food may consist of cattle beets, sprouted oats or cabbage. A very important phase in the treatment of liver troubles is not with the birds. It consists in locating and eliminating the cause of the condition and its immediate correction.

In your specific case, it would be well to place before the birds, so that it is always accessible to them, a good, reliable poultry wash that is well balanced. Although wheat and corn are good foods, nevertheless they are not balanced. It would be a good idea to scatter cracked and scratched grains in the litter in the morning to give the birds an abundance of exercise. The last meal should be plenty of whole corn, so that they can fill their crops to capacity.

Frosted Combs—The fertility of the breeding male is often impaired for a short time by frosted comb. If a good warm pen is not available for the sole use of the male birds, let them remain with the flock during the cold period that precedes the breeding season.

Protect Hens From Dampness—One way to protect the hens from winter dampness is to build the cement floor of the house on a layer of coarse stones six to ten inches thick.

Big Factory Sale on One Man Stump Pullers

Send No Money—30 Days Trial

Prices cut more than $45.00 for 30 days only. Clear stump land in time for this year's crop. No horses or help needed. One man alone pulls big stumps. Write for details and low prices.

No Money Down. Send for liberal 30 day trial, low sale price and *written* 3 Year Guarantee. Very limited offer.

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Fastest, most powerful One-Man Stump Puller. Pulls stumps for few cents each. Double action, 4 speeds. Equipped with 85 feet best cable.

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$44 Buys the New Butterfly Jr. No. 2½ Light running, easy cleaning, close skimming, durable.

NEW BUTTERFLY Separators are guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here; sold on

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Send no money, pay when received.

COOPERATIVE TOBACCO GROWERS, PADUCAH, KY.

IF YOU HAVE ANYTHING TO BUY OR SELL, insert in our classified columns. When you insert a single advertisement your message reaches over 120,000 farm folks.

Find What CANADA has to offer YOU!

If your dream of success seems like a hopeless ambition, if you are discouraged trying to get ahead on high priced land, if your present location fails to give you opportunity, there is a new deal for you, a new chance in the fertile, virgin farms of Western Canada, where wheat produces 20 to 40 bushels to the acre, where the 1922 crop was biggest in history, where oats, barley and hay and fodder crops are the basis of a great dairy industry, and a man's work brings him success and prosperity.

Low Priced Land—the Last Great West

In Western Canada you still can buy virgin prairie land at $15 to $20 per acre, on long terms if desired, near to town, railroads, etc.—land such as has for many years produced the world's prize winning wheat, oats, barley, flax, rye, alfalfa. Canada had no "war time" land boom; prices are not inflated—you get in on the ground floor.

Taxes Favor the Farmer as Values Increase

The tax laws of Western Canada encourage the producing farmer. The tax on land is reduced when it is brought under cultivation—while on your buildings, machinery, improvements, personal property, automobile, there is no tax at all. A single crop is often worth more, acre for acre, than the cost of the land.

Rent Now—Buy Later Pay Out of Profits

Canada welcomes the industrious settler. What you have now isn't so important. If your capital is small, or you cannot sell your present holdings to advantage, rent a fertile Canadian farm and "try it out" for a season or two. Make a good living, increase your capital, and buy later. Farms may be rented from successful settlers on easy terms; in some cases with option of purchase.

Buy on Exceptional Terms—32 Years to Pay

For the benefit of those wishing to buy land a national non-profit sharing organization—the Canada Colonization Association—has been established with head office at Winnipeg, and United States office at St. Paul. This Association offers selected land convenient to railways—much of it at $15 to $20 per acre—on very small cash payment; no further payment until third year; balance extended over thirty years, but purchaser may pay up and obtain title at any time if desired. Interest six percent per annum on deferred payments.

We Help Find Your Opportunity

The Canadian Government maintains information bureaus in leading American centers, where you can get full information, without cost, about all parts of Canada. The men in charge are Government officials, interested only in the service of the prospective settler.

Get the Facts—No Cost

MAIL THE COUPON. Let us know something of your position, and receive free book with maps, and free service of the Canadian Government Agent in your territory; also information how special railway rates can be arranged for a trip of inspection.

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WESTERN CANADA Farm Lands at Low Prices The Wheat Belt of America

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Agent, Department of Immigration—Please send me your free book on Canada. I am particularly interested in

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Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

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The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

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We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our offiee at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

REAL RED REDS, Single Comb, pure bred, deep, rich, red, vigorous Cockerels and Pullets; three, four, five dollars; satisfied customers. MEADOWBROOK FARM, Route 3, Box 210, Lancaster, Pa.

LONG'S STURDY CHICKS—10c. up. Reds, Rocks, White Leghorns and Mixed Chicks. Prepaid live arrival guaranteed. Circular free. TURKEY RIDGE HATCHERY, Millerstown, Pa.

HATCHING EGGS—S. C. W. Leghorns (Ferris 265-300 egg strain), Morris Whitc Orpingtons, $3—15, $5—30. MRS. RALPH CRONKHITE, Fort Plain, N. Y.

HATCHING EGGS from purebred Single Comb White Leghorns, White Minorcas, Barred Rocks, White Wyandottes. $1.50 for 15. CLARENCE BROWN, Kylertown, Pa.

STOCK EGGS—Chicks White Leghorns, Reds, Black Miuorcas, White China Geese, prices reasonable. BROOKSIDE FARM, Keymar, Md.

BABY CHICKS — Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

MAGNIFICENT SINGLE COMB REDS, booking egg orders, $2, $3.50, $5; pullets, $3.50. W. A. HILL, McGraw, N. Y. Rural 1.

S. C. BROWN LEGHORNS exclusively, booking orders for chicks, 15 years with one variety. L. K. DANIELS, Hammond, N. Y.

FOR SALE—Hatching eggs from S. C. W. Leghorns, Tom Barron Strain $2 per 15, $10 per 100. M. S. JAMERSON, Pulaski, N. Y.

PURE BRED WHITE WYANDOTTE EGGS. Utility strain. High egg records, $1.25 per 15 eggs. ALVIN W. BARR, Stoutsville, Ohio.

TORMOHLEN FAMOUS EVERLAY Leghorn Cockerels; eggs for hatching; day-old chicks. SUNNYSIDE FARM, Emporium, Pa.

MONEY SAVED — Free feed. Low prices. Baby chicks. Eggs, brooders. Supplies. EMPIRE HATCHERY, Seward, N. Y.

BLACK LANGSHANS, blue ribbon stock, hardy birds, we give satisfaction. GEORGE A. SEIPT, R. D. 2, Norristown, Pa.

BLACK ROSE COMB BANTAMS, Cockerels and Pullets, shape and Carriage. C. B. SNYDER, Lititz, Pa. R. F. D. 3.

WHITE WYANDOTTE EGGS, from 200 egg strain. Prize winners, $2 per setting. MRS. GEO KELLEY, North Bangor, N. Y.

GOOD BLACK LEGHORN COCKERELS. $2 each, from extra good laying strain. BURT FITZGERALD, Mannesville, N. Y.

SINGLE COMB BLACK MINORCAS, Great layers, Cockerels and Hens eggs, 15, $2; 100, $8. THOMAS EBERSOL, Carrollton, O.

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WHITE AND COLORED Muscovy Ducks. Drakes $4. Trios $10. M. V. CALDWELL, Lisbon, Ohio.

WHITE LEGHORN QUALITY CHICKS. Superior layers. Write NELSON'S, Grove City, Pa.

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ANCONAS — Shepard strain pullets and cockerels, $1.75. JOHN GLICK, Bird-in-Hand, Pa.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

ROSE COMB BROWN LEGHORN EGGS, Reasonable. MAPLEWOOD, Navarre, Ohio.

BUFF ROCK COCKERELS — EDGEWOOD FARM, Ballston Lake, N. Y.

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TURKEYS—Hens and Toms—with size and quality. Pairs and trios no akin. Mammoth Bronze, Bourbon Red, Narragansett, White Holland. Write, WALTER BROS., Powhatan Point, Ohio.

DOGS AND PET STOCK

ENGLISH AND WELSH SHEPHERDS. Bred from natural herding instinct from Sires and Dams that work for a living, 4 month's old pups working with old dogs, pups can be trained in 6 months; now is the time to buy. GEORGE BOORMAN, Marathon, N. Y.

THOROUGHBRED FOX HOUNDS and English Beagles, any age. Alsa Columbian Wyandotte eggs from first prize winners, $2 per 15 or $8 per 100. D. C. KALTREIDER, Red Lion, Pa.

EIGHT WALKER FOX HOUND PUPS FOR SALE—Sire and dams, ear measurement 24 inches. (hounds not shepherds). VICTOR VENNE, Cadyville, N. Y.

FOR SALE, Airdale greyhound dog, age 20 months, fine hunter and watcher, send stamp for reply. BLAIR NEWCOME, Reynoldsville, Pa.

AIREDALE PUPPIES: From pure bred, very intelligent stock. Females, $6. Shipped on approval. WM. W. KETCH, Cohocton, N. Y.

WHO HAS A SMALL DOG TO GIVE TWO BOYS, for playmate on farm, good home. HAROLD SHRINER, Trumansburg, N. Y.

PURE BRED BELGIAN HARES—7 months breeding stock. Price, $2 each. NORTH RIDGE RABBITRY, Cooksburg, N. Y.

ENGLISH SETTER PUPS FOR SALE—Pedigreed, four months old, lemon and white. G. E. ACKART, Schaghticoke, N. Y.

WANTED—To buy male Mexican Chihuahua dog or will sell my female dog. MRS. C. L. BARATIER, Hastings, N. Y.

WANTED RABBIT HOUND PUP, 6 or 8 weeks old, for delivery in May, write HARRY TEAL, Sand Lake, N. Y.

PEDIGREED COLLIE PUPS. Bred Berkshire sows. White Leghorns. EL BRITTON FARM, R. 1, Hudson, N. Y.

COLLIES, beautiful females, sable and tricolor. JOHN D. SMITH, Walton, N. Y.

FLEMISH GIANT RABBITS, Exclusively. T. A. WILSON, Marion, N. Y.

SWINE

REGISTERED POLAND-CHINAS, BERKSHIRES, Chester Whites, all ages, mated, not akin. Bred sows, service boars; collies, beagles. P. HAMILTON, Cochranville, Pa.

FOR SALE—Registered Chester White Swine. All ages, write your wants. ORCHARD SLOPE FARM, R. D. 4, New Castle, Pa.

FOR SALE—Registered Hempshire gilts; one Boar, $20 each while they last. G. H. BULLER, McGuffy, O.

INCUBATOR

FOR SALE—Prairie State Incubator, nearly new, excellent condition, 120-egg, $18, F. O. B. HOWARD CHRISTIAN, Ashland, N. Y.

WANTED—Second-hand Incubator, 500 or 600-egg, in A. 1. condition. Cyphers preferred. H. A. HARRINGTON, Cambridge, N. Y.

FOR SALE—Cyphers 70 egg, hot-air incubator, like new. $20. CHAS. SLATER, R. 7. Box 11, Schenectady, N. Y.

FEMALE HELP WANTED

WANTED—Good neat woman to keep house, must be good cook, two girls 6 and 8 years and myself in family. Good wages, and a splendid home for the right party. Inquire at once. W. E. DAVIS, Java Center, N. Y.

WANTED—Girl or lady to work at dairy home, state wages. I. C. SIMMONS, R. F. D. Heuvelton, N. Y.

WANTED—Middle aged reliable woman for housekeeper for two brothers, on small farm in country. WM. H. PAGE, Prattsburgh, N. Y.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

CIRCULATION Man and Woman, excellent position, good pay, give experience. STANTON, 428, So-West, Syracuse, N. Y.

WANTED—Married or single help to work on farm, good opportunity for right party. CHAS. L. DATER, Melrose, N. Y.

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WANTED all around dairy farm hand on ten cow farm, April 1, until November 1, write stating wages expected. THEODORE H. SMITH, Box 500, Cobleskill, N. Y.

EXPERIENCED DAIRYMAN to care for dairy farm. All modern improvements. ORCHARD HOME FARM, R. D., Olyphant, Pa.

TEN MARRIED MEN and families wanted, Tobacco Plantation; work year around for all. House and garden. Also twenty single men. Write us. AMERICAN SUMATRA TOBACCO CO., Tariffville, Coun.

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WANTED—Man or strong boy to work on farm, state wages wanted. MANTON H. SHOUT, Box 4, Union Grove, N. Y.

WANTED—Caretaker to build up 25-acre poultry farm—share system. FRANK FLEET, Mattituck, L. I.

WANTED—Married, white man for farm work. Bungalow to live in, state wages expected. ELLSWORTH WHITE, 605 Asbury Avenuc, Asbury Park, N. J.

WANTED—Single man on dairy farm. Could use married couple without children. For particulars, address, JOHN W. PORTER, Richland, N. Y.

FARM SUPERINTENDENT WANTED—To take charge of 500 acres March 15, splendid opportunity for right man, state wages and experience. WHITE STAR FARMS, Black Lick, Pa.

WANTED—Single man to work on dairy farm. A. C. REMINGTON, R. D. 5. Meshoppen, Pa.

WANTED—Single man, experienced, reliable for general farm work, state age, particulars, wages expected. FAYETTE TAYLOR, Geneva, N. Y.

WANTED—Single man for general farm work, must be good worker and of good Christian character, care American Agriculturist, N. Y., CHAS. McLEAN, Shavertown, N. Y.

WANTED—A single, reliable man for general farming, write for particulars. WM. H. SKINNER, R. F. D. No. 1. West Valley, N. Y.

FARM HAND WANTED—Man or boy on fruit and grain Farm. Care American Agriculturist. T. J. HALSTEAD, Gasport, N. Y.

WANTED—A good single middle aged man to work on farm of general farming for nine months. S. A. REED, Macedon, N. Y.

WANTED at once all-arouud farm hand, single, state wages, experience, reference first letter, American. L. D. MOYER, Souderton, Pa.

WANTED—Married mau work on farm, no cigarette fiend, house furnished, references. C. W. RITTINHOUSE, R. 5, Ithaca, N. Y.

WANTED—Man 40-50 years old to work on farm, one who can handle horses. W. C. HALL, Geneva, Pa.

WANTED—Single man for general farm. State age, experience and price. H. M. STANLEY, LUCERNE FARM, Skaneateles, N. Y.

WANTED—Boy or man, good home and pay, Fancy maple syrup for sale. CLAUDE CRUMB, MAPLEDELL STOCK FARM, Niobe, N. Y.

WANTED—Young man on fruit, general farm, Christian, no smoking, pleasant disposition, good home and wages. DEANE LIGHTFOOTE, Stanley, N. Y.

WANTED—Man or boy on farm, good home and board, temperate and good character, wages. ELMER McMURRTY, Ticonderoga, N. Y.

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BERRY, VEGETABLE, AND FLOWER PLANTS — Strawberry plants, earliest, latest, largest, most productive and everbearing varieties; raspberry, blackberry, dewberry, loganberry, gooseberry, currant, grape plants; asparagus, rhubarb, horseradish, hop, sage, mint roots; cabbage, cauliflower, eelery, tomato, sweet potato, beet, onion, lettuce, egg plant, pepper, parsley plants; hollyhock, gallardia, delphinium, canterbury bells, foxglove, poppy, sweet william, phlox and other perennial flower plants; aster, pansy, salvia, shapdragon, verbena, zinnia, strawflower, begonia, geranium, and other annual flower plants; dahlia, canna, gladiolus, peony, iris bulbs; roses, shrubs. Catalogue free. HARRY D. SQUIRES, Hampton Bays, N. Y.

STRAWBERRY — Black Raspberry Plants. Wait! Don't order your plants until you get our prepaid prices. We can save you money and furnish the quality. F. G. MANGUS, Pulaski, N. Y.

DAHLIAS—$1.50 per dozen, labeled; $2 per 20, not labeled. Decorative, peony, show caetus. Circular; also white Eskimo puppies, $15 and $20. MRS. HOWARD HOLSINGER, Denton, Md.

DAHLIA BULBS—Beautiful varieties named, twenty cents each, double hollyhock seed, choice, red, white and pink, packet teu cents. J. CALLENDER, Skaneateles, N. Y.

AMAGER STRAIN DANISH BALLHEAD CABBAGE SEED, Imported direct from Copenhagen, Denmark $2.50 lb. postpaid. C. J. STAFFORD, Cortland, N. Y.

WANTED—50 bu. Sir Walter Raleigh seed, potatoes medium size, pure stock. Shipped April or May, state price in first letter. J. J. GLICK, Barrs Mills, Ohio.

FOR SALE—Cucumber pickle seed, large yielding, remaining strong, healthy, growing condition, longer than any known variety. J. KARLIN, Calverton, N. Y.

PROGRESSIVE AND FRANCIS EVERBEARING STRAWBERRY PLANTS, $1.60 per 100; $10 per 1000. BASIL PERRY, R. R. 20. Georgetown, Delaware.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

FOR SALE—Superior Strain, Short Stemmed Home Grown Danish Cabbage Seed. From Selected Heads. C. J. STAFFORD, Cortland. N. Y.

JAPANESE MILLET SEED FOR SALE—Great Forage and Silage crop for lowlands, write for prices. C. E. WHITLOCK, Allegany, N. Y.

DAHLIAS—Fine varieties. Priees pleasing. For catalog, address, DOTY DAHLIA GARDENS, Blasdell, N. Y. or P. O. Lackawanna, N. Y.

BULBS—Dahlias. Ten different colors, postpaid $1.00. Winners State Fair and New York shows. WILFRED ANDERSON, Millbrook, N. Y.

FOR SALE—Named Dahlias, 20 each, unmarked, 60c. doz. Several kinds and colors. Deliver April. EMMA COON, Clay, N. Y.

STRAWBERRY PLANTS. Choice stocky plants at fair prices, catalog free. H. H. BENNING, Clyde, N. Y.

DAHLIAS—Ten named choice varieties, $1. Ten roots hardy Phlox, $1, MRS. BLANCHE M. ROMBERG, Cranbury, N. J.

WANTED—Orders for strawberry plants, 10 varieties $6 per thousand. FRED MOREHEAD, R. 2. Tryonville, Pa.

FOR SALE—Selected seed corn, variety Angel of Midnight, price, $2.50 per bu. C. F. WHEELER, Mannsville, N. Y.

SOY BEANS AND COW PEAS SEED, direct from the farm, address, J. E. GOSLEE, Stockley, Del.

CERTIFIED SEED POTATOES—Sir Walter Raleigh and Russets. ERWIN A. WEEKS, Locke, N. Y.

BEES

PURE EXTRACTED HONEY—Insured to 3d postal zone; 5-lb. pail clover, $1.10; 10-lb. pail, $2; 60-lb. can, $8.50; buckwheat, $1; $1.80 and $7.50. N. L. STEVENS, Venice Center, N. Y.

PURE HONEY—Circular free. ROSCOE F. WIXSON, Dept. A. Dundee, New York.

AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

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MOSS'S CHICKS
BEST IN THE WORLD
PURE BRED

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FOR SALE—Cheap, a trio of young Shorthorn cattle, milk strand, registered, milk-white. CORA M. TURBEN, R. D. 5, Corry, Pa.

FOR SALE—Registered Guernsey Bull, tubercularily tested, two-year old, price, $80 for quick sale. DANA GIBSON, No. 3, Dansville, N. Y.

FOR SALE—Ayrshire calves, both sexes, of high production breeding at farmers prices. EDWIN HARADON, Route 4, Corning, N. Y.

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HIGH BRED BULL, Holstein, with pedigree, ovenly marked, born Nov. 28, 1922. CLAUDE WESTCOTT, Lebanon, N. Y.

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The Valley of the Giants—*By Peter B. Kyne*

"ALL of which appears to be sound business logic, Uncle Seth."

He nodded. "Item three," he continued, and ticked it off on his third finger: "I want to see the feeder for a transcontinental line built into Sequoia from the south, for the reason that it will tap the Cardigan holdings in the San Hedrin watershed and prove of tremendous value, consequently I would prefer to have that value created *after* Cardigan's San Hedrin timber has been merged with ours."

"And so——"

"I must investigate this N. C. O. outfit and block it."

"How for instance?"

"I haven't considered the means, my dear. Those come later. For the present I am convinced that the N. C. O. is a joke, sprung on the dear public by the Trinidad Redwood Timber Company to create a real-estate boom, and boost timber-values. Before the boom collapses, the Trinidad people hope to sell their holdings and get from under."

"Really," said Shirley, demurely, "the more I see of business, the more fascinating I find it."

"Shirley, it's the grandest game in the world."

"And yet," she added musingly, "old Mr. Cardigan is so blind and helpless."

"They'll be saying that about me some day if I live to be as old."

"Nevertheless, I feel sorry for him, Uncle Seth."

"Well, continue to waste your sympathy on him rather than on his son," he retorted laughingly.

"Oh, Bryce Cardigan is able to take care of himself."

"Yes, and mean enough."

"He saved our lives, Uncle Seth."

"He had to—in order to save his own. Don't forget that, my dear." Carefully he dissected a sand-dab and removed the backbone. "I'd give a ripe peach to learn the identity of the scheming buttinsky who bought old Cardigan's Valley of the Giants," he said presently.

"You should have bought it when the opportunity offered," she reminded him. "You could have had it then for fifty thousand dollars less than you would have paid for it a year ago. John Cardigan was beaten and acknowledged it, and I think you might have been little more generous to your fallen enemy, Uncle Seth."

"I dare say," he admitted lightly. "However, I wasn't, and now I'm to be punished for it, my dear: so don't roast me any more. By the way, that speckled hot-air fellow Ogilvy is back in town again. Somehow, I haven't much confidence in that fellow. I think I'll wire the San Francisco office to look him up in Dun's and Bradstreet's. Folks up this way are taking too much for granted, but I for one intend to delve for facts—particularly with regard to the N. C. O. bank-roll and Ogilvy's associates. I'd sleep a whole lot more soundly to-night if I knew the answer to two very important questions."

"What are they, Uncle Seth?"

"Well, I'd like to know whether the N C. O. is a screen to hide the operations of the Trinidad Redwood Timber Company."

"It might," said Shirley, with a sudden flash of intuition, "be a screen to hide the operations of Bryce Cardigan.

AFTER a pause the Colonel made answer: "No, I have no fear of that. It would cost five hundred thousand dollars, and the Cardigans haven't got that amount of money. What's more, they can't get it."

"But suppose," she persisted, "that the real builder of the road should prove to be Bryce Cardigan, after all. What would you do?"

Colonel Pennington's eyes twinkled. "I greatly fear, my dear, I should make a noise like something doing?"

"Suppose you lost the battle?"

"In that event the Laguna Grande Lumber Company wouldn't be any worse off than now. The principal loser would be Miss Shirley Sumner, who has the misfortune to be loaded up with Cardigan bonds. And as for Bryce Cardigan—well, that young man would certainly know he'd been through a fight."

"I'd love to see you beat him."

"Then you really want me to smash him?"

"You got me into this fight by buying Cardigan bonds for me," she replied meaningly, "and I look to you to save the investment or as much as possible.

The Colonel rose hastily, came around the table, and kissed her paternally. "My dear," he murmured, "you're such a comfort to me. Upon my word, you are."

"I'm so glad you have explained the situation to me, Uncle Seth."

"I would have explained it long ago had I not had a sneaking suspicion that despite everything, young Cardigan might—er—influence you against your better judgment and—er—mine."

"You silly man!"

He shrugged. "One must figure from every angle, my dear, and I should hesitate to start something with the Cardigans, and have you, because of foolish sentiment, call off my dogs."

SHIRLEY thrust out her adorable chin aggressively. "Sick 'em, Tige!" she answered. "Shake 'em up, boy!"

"You bet I'll shake 'em up," the Colonel declared joyously. He paused with a morsel of food on his fork and waved the fork at her aggressively. "You stimulate me into activity, Shirley. My mind has been dull of late; I have worried unnecessarily, but now that I know you are with me, I am inspired. I'll tell you how we'll fix this new railroad." Again he smote the table. "We'll sew 'em up tighter than a new buttonhole."

"Do tell me how," she pleaded eagerly.

"I'll block them on their franchise to run over the city streets."

"How?"

"By making the mayor and the city council see things my way," he answered dryly. "Furthermore, in order to enter Sequoia, the N. C. O. will have to cross the tracks of the Laguna Grande Lumber Company's line on Water Street—make a jump-crossing—and I'll enjoin them and hold them up in the courts till the cows come home."

"Uncle Seth, you're a wizard."

"Well, at least I'm no slouch at looking after my own interests—and yours, Shirley. In the midst of peace we should be prepared for war. You've met Mayor Poundstone and his lady, haven't you?"

"I had tea at her house last week."

"Good. Suppose you invite her and Poundstone here for dinner some night this week. Just a quiet little family dinner, Shirley, and afterwards you can take Mrs. Poundstone upstairs, on some pretext, while I sound Poundstone out. They haven't asked for a franchise yet; at least the "Sentinel" hasn't printed a word about it; but when they do, of course it will be advertised for sale to the highest bidder. Naturally, I don't want to bid against them; they might run the price up on me and leave me with a franchise on my hands. I feel certain, however, I can find some less expensive means of keeping them out of it—say by convincing Poundstone and a majority of the city council that the N. C. O. is not such a public asset as its promoters claim for it."

She nodded. "I shall attend to the matter, Uncle Seth."

Five minutes after dinner was over, Shirley joined her uncle in the library and announced that His Honor, the Mayor, and Mrs. Poundstone, would be delighted to dine with them on the following Thursday night.

CHAPTER XXII

TO return to Bryce Cardigan:

Having completed his preliminary plans to build the N. C. O., Bryce had returned to Sequoia, prepared to sit quietly on the side-lines and watch the peppery Buck Ogilvy go into action.

In his last year at college Ogilvy's father, a well-known railroad magnate, had come a disastrous cropper in the stock market, thus cutting short Buck's college career—which has probably the very best thing that could happen to his father's son. For a brief period—perhaps five minutes—Buck had staggered under the blow; then his tremendous optimism had asserted itself, and while he packed his trunk, he had planned for the future.

Ogilvy's return to Sequoia following his three weeks' tour in search of rights of way for the N. C. O. was heralded by a visit to Bryce Cardigan. As he breasted the counter in the general office, Moira McTavish left her desk and came over to see what the visitor desired.

"I should like to see Mr. Bryce Cardigan," Buck began in crisp business-like accents. He was fumbling in his card-case and did not look up until about to hand his card to Moira—when his mouth flew half open, the while he stared at her with consummate frankness. The girl's glance met his momentarily, then was lowered modestly; she took the card and carried it to Bryce.

"Hum-m-m!" Bryce grunted. "That noisy fellow Ogilvy, eh?"

"His clothes are simply wonderful—and so is his voice. He's very refined.

Bryce rose and sauntered into the general office.

"Mr. Bryce Cardigan?" Buck queried politely.

"At your service, Mr. Ogilvy. Please come in."

"Thank you so much, sir." In the private office, he closed the door carefully behind him, and stood with his broad back against it.

"Buck, are you losing your mind?" Bryce demanded.

"Losing it? I should say not. I've just lost it."

"I believe you. If you were quite sane, you wouldn't run the risk of being seen entering my office."

"Tut-tut, old dear! None of that! Am I not the mainspring of the Northern California Oregon Railroad and privileged to run the destinies of that soulless corporation as I see fit?" He sat down, crossed his long legs, and jerked a speckled thumb toward the outer office. "I was sane when I came in here, but the eyes of the girl outside—oh, yow, them eyes! I must be introduced to her. And you're scolding me for coming around here in broad daylight. Why, you duffer, if I come at night, d'ye suppose I'd have met her?

"You like Moira's eyes, eh?"

"I've never seen anything like them. I have little prickly sensations, like ants running over me. How can you descend to labor with an houri like that around. Oh, man!

"Love at first sight, eh, Buck?"

"I don't know what it is, but it's nice. Who is she?"

"SHE'S Moira McTavish, and you're not to make love to her. Understand? I can't have you snooping around this office after to-day."

Mr. Ogilvy's eyes popped with interest. "Oh," he breathed. "You have an eye to the main chance yourself, have you? Have you proposed to the lady as yet?"

"No, you idiot."

"Then I'll match you for the chance to propose first." Buck produced a dollar and spun it in the air.

"Nothing doing, Buck. Spare yourself these agonizing suspicions. The fact is that you give me a wonderful inspiration. I've always been afraid Moira would fall in love with some ordinary fellow around Sequoia—propinquity, you know——"

"You bet. Propinquity's the stuff. I'll stick around."

"—and I've been on the lookout for a fine man to marry her off to. She's too wonderful for you, Buck, but in time you might learn to live up to her."

"Duck! I'm liable to kiss you."

"Don't be too precipitate. Her father used to be our woods-boss. I fired him for boozing."

"I wouldn't care two hoots if her dad was old Nick himself. I'm going to marry her—if she'll have me. Ah, the glorious creature!" He waved his arms desparingly. "O Lord, send me a cure for freckles. Bryce, you'll speak a kind word for me, won't you?"

"Certainly. Now come down to earth and render a report on your stewardship."

"I'll try. To begin, I've secured rights of way, at a total cost of twelve thousand, one hundred and three dollars and nine cents, from the city limits of Sequoia to the southern boundary of your timber in Township Nine. I've got my line surveyed, and so far as building the road is concerned, I know exactly what I'm going to do, and how and when I'm going to do it."

"What steps have you taken toward securing your material?"

"Well, I can close a favorable contract for steel rails with the Colorado Steel Products Company. Their schedule of deliveries is O. K. as far as San Francisco, but it's up to you to provide water transportation from there to Sequoia."

"We can handle the rails on our steam schooners. Next?"

"I HAVE an option of a rattling good second-hand locomotive down at the Santa Fé shops, and the Hawkins & Barnes Construction Company have offered me a steam shovel, half a dozen flat-cars, and a lot of fresnos and scrapers at ruinous prices. However, it is first-rate equipment for us, because it will last until we're through with it; then we can scrap it for junk. We can buy or rent teams from local citizens and get half of our labor locally. San Francisco employment bureaus will readily supply the remainder, and I have half a dozen fine boys on tap to boss the steam shovel, pile-driver, bridge-building gang, track-layer and construction gang. And as soon as you tell me how I'm to get my material ashore and out on the job, I'll order it and get busy."

"That's exactly where the shoe begins to pinch, Pennington's main-line tracks enter the city along Water Street, with one spur into his log-dump and another out on his mill-dock. From the main-line tracks we also have built a spur through our drying-yard out to our log-dump and a switch-line out on to our mill-dock. We can unload our locomotive, steam shovel, and flat-cars on our own wharf, but unless Pennington gives us permission to use his main-line tracks out to a point beyond the city limits—where a Y will lead off to the point where our construction begins—we're up a stump."

"Suppose he refuses, Bryce. What then?"

"Why, we'll simply have to enter the city down Front Street, paralleling Pennington's tracks on Water Street, turning down B street, make a jump-crossing of Pennington's line on Water Street, and connecting with the spur into our yard."

"Can't have an elbow turn at Front and B streets?"

"Don't have to. We own a square

(*Continued on page* 231)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

WHEN Buck Ogilvy struck Sequoia, things began to hum. He was Bryce Cardigan's old college friend, but because Buck came to push a railroad which Bryce was secretely backing they had to seem unacquainted.

Old Cardigan had been beaten at every turn by the unscrupulous Colonel Pennington, but his son sensed a way to make the Cardigan timber accessible and defeat the Colonel's plan to starve them out. Things were complicated, however, by the fact that Bryce had fallen in love with the Colonel's niece, Shirley, who unknown to him had bought the Cardigan's Valley of the Giants, checkmating her uncle and giving Bryce the necessary funds to wage his fight.

A New Embroidery Design

And an Unusual Gingham Dress For All Sizes

GINGHAM, this year, won't be cheap. But here's a dress of extra quality material, in all sizes and several pretty colors, that has a "pre-war" price, even though the style is right up-to-date. Frankly, we are very proud to have secured this dress, and because it is such an unusual value, the New York department store which supplies it, is keeping the entire stock aside for American Agriculturist readers. Better order quickly and be sure of your color and size! (Not more than three will be sent to any one person.)

The dress has a Peter Pan collar, cuff and pockets with pique trimming.

Sleeves are one half length. There is a tie-back sash. Pearl buttons finish the vestee effect.

Sizes: 36, 38, 40, 42, 44, 46, 48, 50 52 and 54.

Colors—Blue, brown, gray, lavender and black checks.

Price. (prepaid) $1.69 for all sizes.

To order this dress, send check or money order for correct amount to the Fashion Editor, American Agriculturist, 461 Fourth Avenue, New York. State size and color, and write name and full address clearly.

If this dress, or any article bought through the shopping service, is not satisfactory, it may be returned for an exchange, or for a refund. In that case, send the garment to the store from which it comes, with a letter stating what adjustment is desired. In case of any difficulty notify The Fashion Editor.

The Valley of the Giants

(*Continued from page* 230)

block on that corner, and we'll build across it, making a gradual turn."

"See here, my son," Buck said solemnly, "is this your first adventure in railroad building?"

Bryce nodded.

"I thought so; otherwise you wouldn't talk so confidently of running your line over city streets and making jump-crossings on your competitor's road. If your competitor regards you as a menace, he can delay you indefinitely."

"I realize that, Buck. That's why I'm not appearing in this deal. If Pennington suspected I was back of it, he'd move heaven and earth to keep me out of a franchise. Of course, since his main line runs on city property, under a franchise granted by the city, the city has a perfect right to grant me the privilege of making a jump-crossing of his line——"

"Will they do it? That's the problem. If they will not, you're licked, my son, and I'm out of a job."

"We can sue and condemn a right of way."

"Yes, but if the city council puts up a plea that it is against the best interests of the city to grant the franchise, you'll find that except in most extraordinary cases, the courts regard it as against public policy to give judgment against a municipality, the State or the Government of the United States. At any rate, they'll hang you up in the courts till you die of old age; and you have to have this line running in less than a year, or go out of business."

Bryce hung his head, thoughtfully. "I've been too cocksure," he muttered presently. "I shouldn't have spent that twelve thousand for rights of way until I settled the matter of the franchise."

"Oh, I didn't buy any rights of way—yet," Ogilvy hastened to assure him. I've only signed the land-owners up on an agreement for any time within one year from date. The cost of the surveying gang and my salary and expenses are all that you are out to date."

(*Continued next week*)

EMBROIDERY FOR YOUR BEST PILLOWSLIP ENDS

Though gaily colored stitching is high in favor, no type of embroidery can ever dislodge from the favoritism of the particular woman the snowy-white work which offers such varied opportunity for daintiness and fineness.

Pillowslips seem to answer especially well to the craft of the embroiderer. A graceful, flowing design is illustrated in the picture and it will look extremely handsome in glossy white floss on your "company" beds. Eyelets or solid dots fill in the bowknot design; though perhaps a little harder to work, eyelets are really the prettier and are worth the trouble of punching and working.

The transfer patterns, including two pillowslip ends, with the design reversed, and one plain scallop for the other edge, will be sent for 20c in stamps. This is another of the exclusive designs which American Agriculturist readers may purchase; it is not on sale elsewhere and can be bought only through the magazine.

Ask for E. 9 and address your order to the Handicraft Department.

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Weaving Rugs Without a Loom

Mrs. George Gray Tells How to Do It—Spring Dresses for Girls

THERE are looms galore for hand-weaving, but not many people know how to weave without a loom.

The requisites are a board as wide as you plan to have your rug, and a long flat piece of board to carry the rags. We will call this the needle. The rags should be prepared by cleaning if necessary, cutting an inch wide, and dyeing any desired color. They are used for both warp and filler. The warp should run up and down and the filler across. The wider way of the board is used for width of the rug. White is usually used for the warp, although any preferred color may be used. Before beginning, we must decide as to the dimensions of the rug. Two and a half times the width is a good proportion. A straight line drawn a short distance from the top is a necessity for keeping the work even. Having decided the length of our rug, we have our warp strips a little more than twice its length.

Beginning at the bottom of the board, lay a strip of the warp smoothly on the board, tacking it with a carpet tack near the base. Carry the warp up the board and tack on the straight line. Twist the material sharply and tack again half an inch farther on the line. Carry material down the board and fasten with another tack. Take the second strip and repeat process, continuing until the board is covered. Your loom will then be warped and ready for the weaver. A piece of yard-stick makes a good weaver. It should be pointed at one end and have an eye cut in the other. Have a plan for your color scheme and use the colored material, as it is needed to carry this out.

Having threaded your needle, you are ready to begin weaving. This is very easy, for it is just like darning—under one and over the next. The end should be fastened just below the corner tack on upper end. It is best to have the carpet rags rolled in balls. If the ball is put in a small pail it will unroll as needed without tangling. The rags should be pushed firmly up toward the line of tacks and care be taken to keep the work smooth and even. Rugs require a border at each end, so it is well to plan to weave about four inches like the center is to be, then change to another desired color, and weave about three inches. Then thread needle again with center material and repeat process until you have three stripes of the contrasting color; then use center material until you reach the bottom of the board where the warp is tacked.

The rug must now be moved up. Tacks are taken out and the rug pushed up to the top of the board and each warp tacked a little above the weaving. Fasten the warps at bottom of the board and proceed with weaving. Measure where your border comes, and have both ends of rug exactly alike. By moving the rug you are able to weave any length you wish, even to carpet for the stairs. If the ball runs out or thread breaks sew more on and proceed. When weaving is completed, cut the warps an inch longer than rug and turn them under, fastening them securely with needle and thread.

From the layette for the new baby to the comfortable frock for grandma, the spring catalogue shows styles for every use and every age. Commencement dresses, house frocks, aprons,

boys' suits, men's shirts, all are included, and many more as well.

Then too, there are dressmaking lessons, embroidery designs and hints on choosing colors and becoming lines. It is a treasure-box of style information for the woman who sews at home.

And it costs only ten cents. The books are selling rapidly, so get your order in at once. Add five two-cent stamps to your pattern order and send it to Pattern Department American Agriculturist, 461 Fourth Avenue, New York City.

STYLES FOR YOUNGSTERS

Gone are the old days when our children were dressed like miniature men and women. Now-a-days they have styles which really suit them, planned especially for play or party wear, and easy for mother to make and launder.

Such a frock is No. 1671, as simple a little dress as one could imagine, yet

ideal for any soft fabric. Only two pieces of material are required; you stitch up the shoulder and side seams, finish the neck and add a pretty ribbon girdle and there you are!

No. 1671 cuts in sizes 8, 10, 12 and 14 years. Only 1⅞ yards of 36-inch material are required for size 8. Price of pattern 12 cents.

If you are looking forward to graduation or if your daughter needs a party frock for spring festivities, No. 1668 will solve the problem. Notice the tiers of material in overskirt fashion and the bertha collar, both new features this year.

No. 1668 comes in sizes 8, 10, 12 and 14 years. The 8 year size takes 3⅜ yards of 40-inch material with 6¾ yards edging and 1¾ yards ribbon. Price 12 cents.

To Order: Write your name and address plainly, enclose 12 cents in stamps or coin (wrap coin carefully) and send your order to Fashion Department.

USES OF SALT

MABEL FERN MITCHELL

Salt in water cleans glass bottles.

Salt added to snow makes it much colder.

Salt and hot water thaws frozen drain pipes.

Coarse salt is fine to rub over hot irons.

Salt and hot water sometimes stops the itching of chilblains.

Salt added to cold or boiled starch imparts a gloss.

Cut flowers can be kept fresh by adding salt to water.

Salt thrown in any burning substance stops smoke and blaze.

Heat salt and pack in flannel bag, in absence of hot-water bottle.

Apply a solution of salt and vinegar to your teacups to remove stains.

Soda and salt moistened with water will relieve the sting of a bee.

Salt makes the teeth white.

Clothes stained by perspiration may often be washed clean if soaked in salt water.

Salt sprinkled on ink freshly spilled on carpets will aid in the removal.

A pinch of salt added to eggs while beating will make a stiffer and quicker froth.

Salt and warm water used to bathe tired eyes will greatly refresh them.

Stubborn grease spots are often removed when salt is dissolved in the alcohol used in cleaning.

Soak your brooms in hot water in which is some dissolved salt. They will wear longer and will not break so easily.

When a broiling fire is desired and your fire is only a dull, smoldering one, put on a handful of salt.

Soak your delicate colored wash dresses in salt water before laundering. This sets the color. Then pour the salt water down the drain pipes.

18 Ever-Blooming ROSE BUSHES

YOURS AS A GIFT For Only 2 Yearly Subscriptions for *American Agriculturist* at $1.00 each. Your own renewal may be sent as one of the two subscriptions required.

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Guard Against Pneumonia

Dr. Charlotte C. West Warns Us of Disease

PNEUMONIA, one of the most prevalent diseases to-day, ranks higher than tuberculosis in mortality.

"It occurs everywhere, in all climates, at all times of the year, in both sexes, and at all ages, it is more frequent however, during the cold months of the year. It is common in children under six years; between the sixth and fifteenth year, the predisposition is less marked, but for each subsequent decade it increases."

I have quoted from a famous authority. I want to impress my readers with the wide prevalence of the disease, and with the fact that little children and old people are most susceptible. March, also, is the month in which it is most prevalent.

Pneumonia, contrary to popular belief, is an infectious, indeed a contagious disease. Because of ignorance, those who succumb to pneumonia are not isolated, as is the case with scarlet fever, smallpox and the like. The germ of pneumonia leaves the body mainly through discharges from the mouth and nose and enters the system through the same channels. The infection is spread directly and indirectly through cups, thermometers, handkerchiefs, and other objects contaminated with the discharges. This serious—often fatal—disease cannot exist unless the germ is present in your tissues; even then you will not succumb to it if you are in a state of health to resist.

The danger at present for outbreaks of local epidemics lies in the fact that world conditions are affecting us. For instance: as to fuel, so that exposure to cold is great; as to food, so that a lowered vitality is greater; as to strain upon the nervous forces, so that the general morale is lowered. In addition to these agencies, is the weather. A low, but steady temperature brings less danger than do abrupt changes.

Preventive Measures You Can Take

Overfatigue from any cause must be avoided. The body chills more quickly when it is not perfectly fed. A person whose enthusiasm leads him to work when he is tired and should rest, or leads him to forgo a meal when the body requires fuel, is inviting pneumonia at the present time. So those who overwork and underfeed themselves run a great danger.

A certain amount of fuel is indispensible to the body's needs. But the nature of this fuel is vitally important. Starches and sugars will not take the place of fat when supplying the body with heat-producing, energizing fuel. The resistance of the body to pneumonia and similar diseases is weakened when the proper amount of fat in the diet is decreased. We need more fat to keep us warm in cold weather.

I have again and again called attention to the importance of fresh-air breathing, of living as much as possible out of doors, of flooding the rooms with fresh air and sunshine. To prevent pneumonia it is essential to keep up the vitality of the body with an abundance of fresh air, proper food and, thirdly, rest. A proper amount of sleep in a well-aired room is therefore highly important.

Shun rigidly all those who cough, sneeze and spit. Do not use articles of any description used by another. This holds especially true of the handkerchief, the family towel, face cloth and drinking cups. In some families these articles are common property. Such practices are to be highly condemned and should be taboo if for no other reason than that of health. Every member of the family should have his own toilet articles, towels and so on, and use these only.

Colds predispose to pneumonia, therefore avoid draughts and sudden changes in temperature, as in going from a dry superheated air into cold damp air. Those who perspire freely should be extremely careful of exposure.

Too much cannot be said on the subject of overeating, especially habitual overeating. Those whose systems are clogged with waste materials become ready victims to this disease. Children should be especially guarded both as to diet, warmth and fresh air.

Modern Treatment is Intelligent

The protective serum against acute pneumonia is now an assured thing. Thanks to the splendid researches and achievements of the scientists connected with the Rockefeller Institute, it is out of the experimental stage and by its use not only the nature of the particular variety of pneumonia from which the patient is suffering can be determined, but the disease can be aborted.

Until quite recently the treatment of pneumonia consisted in shutting the patient up in a closed, almost sealed room, stifling him under quantities of bedding and hastening his end with drugs that had no effect on the disease. Some years ago a country doctor was almost flayed alive because he insisted upon treating a little pneumonia patient with fresh air, and this state of mind on the subject of fresh air is surprisingly widespread.

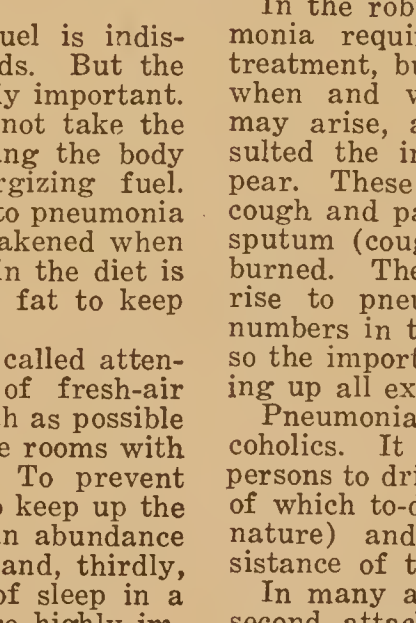
In many sections of the country, physicians find great difficulty in persuading the family of the rationale of this mode of procedure and frequently find that windows are immediately lowered the moment the doctor's back is turned. The room must be freely ventilated even if a direct current of air is necessary for this; as long as the fever keeps up the patient cannot take cold. It is only necessary to see the effects to be convinced of the value of fresh air, in reducing many distressing symptoms, notably that of labored breathing. Attendants should of course be warmly clad.

In the robust, typical cases of pneumonia require little besides hygienic treatment, but since one can never tell when and what untoward symptoms may arise, a physician must be consulted the instant the first signs appear. These are the initial chill, fever, cough and pain through the chest. All sputum (coughed up matter) should be burned. The germ or microbe giving rise to pneumonia swarms in great numbers in the sputum of all patients, so the importance of immediately burning up all expectorated matter is clear.

Pneumonia attacks particularly alcoholics. It is the height of folly for persons to drink this rank poison (much of which to-day is of particular deadly nature) and therefore lower the resistance of the body to disease germs.

In many acute infectious diseases, a second attack rarely occurs. This is called immunity. Now pneumonia does not confer immunity to those who have had it. On the contrary the lungs have become so weakened that future attacks are more than liable to occur.

There are several varieties of acute pneumonia, which I will not enter into here, including double pneumonia, which is especially dangerous.



Charles Ralph Hudson didn't want his picture taken. But his cousin, Mrs. Harry Bitz, got this rear view, which at least shows us that Charles Ralph is a pretty solid citizen. She also tells us that he has large blue eyes very rosy cheeks, a round well-shaped head and is very muscular and strong. He's a bright youngster, and very observant. His father, Arthur Hudson of Memphis, N. Y., is an American Agriculturist subscriber and his young son, they say, is well disciplined and never doubts the authority of his parents. Evidently Charles believes that an American Agriculturist subscriber must be right about everything.

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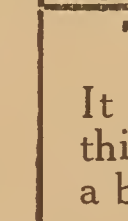

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AMERICAN AGRICULTURIST

461 FOURTH AVE., NEW YORK CITY

Reviewing the Latest Eastern Markets and Prices

POTATO MARKET BETTER

DUE to cold weather, car shortage and bad roads in the country, there was a good market for potatoes last week. The demand began about Washington's Birthday and prices for States firmed up from $2.00 per 150-lb. sack, delivered in carlots, to $2.20, with quotations ranging from $2.10 to $2.40. Bulk, $1.25 cwt. to $1.35. Sales in the yards, depending on quality, were made from $2.15 to $2.50 per 150-lb. sack; a few quoted as high as $2.65. Long Islands in light supply (there are only a few cars yet in the hands of growers) sold as high as $5 per 180 lbs. bulk in some yards. At Pittsburgh March 1 State round whites brought $2.75 per 150-lb. sack.

As long as present conditions prevail in the country and the New York City arrivals are light, the demand ought to continue.

Total carlot shipments in the country, including both old and new crops potatoes, are running several thousand ahead of last year at this time, although shipments of late crop potatoes are about 5,000 cars below last year. Shipments of Long Island potatoes are over 2,000 cars in excess of last year to date, but up-State New York is nearly 4,000 cars below last year. Maine is 7,000 cars behind last year.

The United States Department of Agriculture estimates a much smaller acreage of early Irish Cobblers to be planted in Alabama, Florida, North Carolina, South Carolina, Texas and Virginia. It is possible that in spite of the heavy production of late crop potatoes last fall, the two factors of destruction of crop because of discouragement and neglect in the West and the shortage in new crop potatoes, may keep the market in the East from breaking as sharply as expected with warmer weather.

HIGH CABBAGE PRICES CONTINUE

Cabbage continues very scarce and good Danish white sold last week at $50 to $55 per ton in New York. Some New York buyers went up into the country and bought cabbage from growers at $30 per ton by paying cash for it, while shipments sent to New York on consignment realized $40 per ton net f. o. b. shipping point for the shippers. Southern new cabbage shipments so far this season amount to only 852 cars, compared with 2,730 cars up to February 25 last year. The market will probably hold up till new-crop shipments become heavier, but warmer weather will release a lot of late cabbage that cannot be shipped under present conditions. The Pittsburgh market has been higher than New York, and on March 1 white Danish was quoted there at $70 to $80 per ton, wholesale bulk.

APPLE RECEIPTS LIGHT

Owing to the light receipts last week, the market continued firm and active for fancy barreled apples of either red or green varieties. The f. o. b. market at Rochester for A grade 2½-inch Baldwins was $4.75 to $5 per bbl. and for Greenings $4.50 to $4.75.

Wholesale prices at New York on barreled apples March 1, per bbl., A grade, 2½-inch, were:

Variety	Best	Fancy	Ordinary
Baldwin...	$5.25@5.50	$5.75	$5
Greening.	5.50@5.75	6	4.75@5
King.....	5 @5.25	5.50	4.50@4.75
N. Spy....	7 @8	9 @10	

EGGS COME DOWN GRADUALLY

The top quotation on extra fancy New Jersey eggs was down to 45c per dozen March 1, compared with 48c on the previous Friday. Receipts at New York are increasing, and exceed those of last year since January 1 by over 60,000 cases. Total receipts in the four largest markets of the country are also in excess of last year by over 20,000 cases. Reports from most sections of the country indicate increased numbers of laying hens. The storage reserve is now nearly exhausted. The temporary advance in eggs, due to extreme cold weather, however, seems to have reduced consumption somewhat.

The demand for fancy nearby eggs has been active, however, and stocks cleaned up fairly well last week. Fancy hennery brown eggs now bring amost as high a price as fancy whites, top quotation being 44c on March 1. To get such a price, the eggs must be a good dark brown color and large size. Cream-colored eggs are not wanted.

Wholesale prices on March 1 were about 1c lower per dozen than on corresponding date last year.

SPECULATION AFFECTS BUTTER MARKET

Last week wholesale prices on fresh creamery extras went up to 52½c, and then dropped to 49c. Speculative buying in the Chicago market undoubtedly had a considerable effect on prices and kept the tone firm. The situation was very sensitive, however, and prices dropped very sharply on March 1. The consumption has held up remarkably well in the face of prevailing prices. Stocks on hand in the four largest national markets last week showed some reduction, and the present cold storage holdings are extremely light for the season. The production of new butter is still running considerably ahead of last year. Prices now are below the level of most of the foreign butter markets, and no further new shipments are being directed this way. Only a small shipment of 1,000 boxes of Argentine butter arrived last week. In spite of the decline on March 1, the prospect is for a continued firm market.

CHEESE MARKET STEADY

The production of cheese in the East has not increased materially. Only a few lots have come to New York and trading on these has been rather quiet, since the only large buyers have been the grinders. There has been some export inquiries for fresh cheese, English markets being high, but the prices bid have not yet been high enough to secure any stock here. In the West the making of fresh cheese is gradually increasing and is still running heavier than last year.

The wholesale market for cheese has been more active, however, and stocks of held cheese at all the Eastern markets have been reduced to an extremely low point for the season. Fancy, held, State flats which are in the hands of a few dealers are very firm and show a tendency to advance. Feeling is generally steady on fresh State flats, spot offerings of which are light. A good many of the fresh cheeses now being made are washed curds of which comparatively few are coming to this market. State whole milk flats, average run, white and colored were quoted March 1, at 28 @ 28½c for held and 26c for fresh.

NEW RULING ON LIVE ANIMALS

The recent ruling of the New York City Health Department prohibiting the sale of live animals unless first sent to the licensed meat slaughter houses has caused objection from some of the laboratories where these animals were used for experimental purposes. The Health Department has stated that shipments of live animals destined for hospitals and universities would be under embargo until the laboratory actually received them. Dealers having orders from these laboratories can have the embargo on the animals lifted by communicating with the Department of Health.

The prohibition of the sale of live animals unless sent to licensed slaughter houses has cut off a large part of the receipts.

LIVE STOCK PRICES LOWER

The New York market on practically all live stock was lower last week owing to decreased demand. The supplies of cattle were heavy and there was a fair supply of calves. There were practially no lambs from nearby sections. Calves both of Jersey City and New York sold at 5 to 15c per lb., prime stock bringing 14 to 15c. Cattle ranged from 5½ to 10c per lb., bulls 5 to 6c, cows 2 to 5c and hogs mostly around 9c.

FIRST SPRING BROILERS ARRIVE

The first receipts of genuine spring broilers arrived last week and sold quickly at 85c each, 1 lb. weights. A few later sales were reported as high as 87c, the range going as low as 75c. There is a strong demand for these early spring broilers and additional shipments would move quickly. There is an over-supply of live fowls in the market and prices tend downward. The average run of live chickens received now are very staggy and little better than old roosters. Small chickens are in demand and selling at a wide range in prices depending upon size and quality. Express shipments of pigeons sold at 50 @ 55c per pair. Express shipments of live turkeys sold readily. Demand is largely for hens and on mixed lots 25c has been full price. Straight shipments of hens bring as high as 40c. The season for geese is rapidly waning, qualities are running poor and trading is slow with 20c as extreme price for the best.

HONEY MARKET STEADY.

Wholesale prices on honey have changed very little in several weeks but the feeling is a little better. White clover extracted per lb. sells wholesale at 9½ @ 10½c, in comb, $3.50 @ $4.50 per case; Buckwheat extracted, 8½ @ 10c, in comb, $3 @ $4.

DRESSED MEATS LOWER

Country dressed calves dropped from 25 to 16c per lb, on an average last week. Receipts were very heavy, and market was weak. Dressed hot house lambs found a slow demand and dropped from 15 to 10c per lb, on an average. There were very few dressed hogs from nearby sections. The prices ranged from 5 to 30c, depending upon weights and quality. White-skinner roasting dressed pigs, 10 to 15 lbs. weight, sold at 25 to 30c per lb.; 16 to 40 lbs., 20 @ 23c; 40 to 100 lbs., 12 @ 16c, and 100 to 150 lbs., 10 @ 12c.

MAPLE PRODUCTS

The market for maple sugar and syrup is quiet, although supply of cake sugar is light. Wholesale prices 25 @ 30c per lb. for sugar and $1.60 @ $1.70 for syrup. The large buyers are fairly well supplied till new run of syrup will be available. Consumer demand is light. Opportune time for producers to interest the public in maple syrup and sugar, is during the coming sap drawing season. A campaign of publicity and advertising would at that time do a lot to increase consumption.

HAY SHORTAGE RELIEVED

The acute shortage of hay at New York terminals, due to difficulties of transportation, was somewhat relieved last week. Receipts continue light, however, and the market steady. The values of hay shipments were not clearly defined, and prices depended somewhat on willingness of dealers who had hay to take advantage of shortage. Most sales ranged from $26 to $30 per ton, with some at even higher prices.

With milder weather, country roads may be in such bad shape as to check shipping, and the market may continue good for some time. It would seem desirable to get hay to market as long as conditions remain as at present.

The railroad's system of issuing permits through New York dealers for shipment of hay has been repeatedly criticised in these columns. It has some arguments in its favor, of course, but, on the whole, it is a pernicious system. If permits are to be issued at all, they should go out through some public agency, such as the Department of Farms and Markets, or a committee in which shippers and receivers are represented. The whole machinery for handling hay shipments in the New York market creaks with antiquity.

FEED MARKET QUIET

Offerings of feed stuffs were liberal at Buffalo last week, but prices continued fairly firm. Bran and middlings were in greatest demand. Quotations on carlots f. o. b. Buffalo in 100-lb. sacks, March 1, were: Gluten feed, $46.50; cottonseed meal, 36 per cent, $47.75; cottonseed meal, 43 per cent, $53; oil meal, 33 to 34 per cent, local billed, $50; dried brewers' grains, $49; standard spring bran, $35; hard winter bran, $35.75; standard spring middlings, $35; choice flour middlings, $37.00; white hominy, $33.80. Feed grains f. o. b. Buffalo, per bu.; No. 2 yellow corn, 84c; No. 2 white oats, 53c.

CASH GRAINS AT NEW YORK

The following were cash grain prices at New York March 1: No. 2 hard winter, $1.31; No. 2 mixed durum, $1.22½; No. 2 yellow corn, 91c; No. 2 mixed corn, 90½c; No. 2 white oats, 56c; rye, 95¾c; barley, 81@82c; buckwheat, $1.95 @ 2.25. At Chicago—No. 2 hard wheat, $1.18½ @ 1.20½; No. 2 yellow corn, 73½ @ 74½c; No. 2 white oats, 45½ @ 47c; rye, 83½ @ 84c; barley, 65 @ 73c.

TRADING IN BEANS LIGHT

The New York market on dry beans continued quiet. Trading was mostly of light jobbing character. Feeling fairly steady on most varieties. Quotations March 1 follow: Marrows, domestic, $10 @ 10.75; per 100 lbs., pea beans, medium, $8.25 @ 8.50; red kidneys, $8.50; white kidneys, $9 @ 10.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on March 2:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	43 @45	.....	.....
Other hennery whites, extras	45	.....	.....
Extra firsts	40 @40½	39@41	40
Firsts	38½@39½	.....	38
Gathered, whites, first to extra firsts	38½@40	.....	.....
Lower grades	37 @38	.....	.....
Hennery browns, extras	42 @44	.....	.....
Gathered browns and mixed colors, extras	36 @41	38@39	.....
Pullets No. 1	37½@38	38@39	.....
Butter (cents per pound)			
Creamery (salted) high score	49½@50	55@56	.....
Extra (92 score)	49	54@55	53
State dairy (salted), finest	.....	50@51	.....
Good to prime	.....	45@48	.....
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$28@29	20@21	20@21
Timothy No. 3	27@28	.....	17@18
Timothy Sample	21@23	.....	.....
Fancy light clover mixed	27@28	.....	20
Alfalfa, second cutting	28@29	.....	.....
Oat straw No. 1	16@18	.....	15@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	25	26@27	28@29
Fowls, leghorns and poor	24@25	24@25	.....
Chickens, leghorns	23@24	23@25	26@28
Roosters	15@16	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	13 @13¾	11@15	.....
Bulls, common to good	4 @ 4½	4@5	.....
Lambs, common to good	9½@13½	14@15½	.....
Sheep, common to good ewes	3½@ 5½	6@ 8½	.....
Hogs, Yorkers	9 @ 9¼	8¾	.....

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TO THE RIGHT HOUSE
M. ROTH & CO.
ESTABLISHED OVER 30 YEARS
185 Duane Street, New York City
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150,000 RURAL CHICKS

in 1923 from our FAMDUS RURAL STRAIN, CHAMPION LAYERS S. C. English Strain White Leghorns, Brown Leghorns and Anconas. We operate one of the largest combined modern equipped hatchery and poultry farms in Western Michigan. Our flocks have been bred all these years for high flock averages which goal we have attained. Our flocks are all on free range which assures you of the desirable, strong, sturdy chicks that mature more rapidly with a decreased mortality rate and develop in from 4 to 5 months into the greatest layers. Order some of these money makers today. Extra Selected White Leghorns, 100—$16.00; 500—$77.50; Heavy Laying Brown Leghorns, 100—$16.00; 500—$77.50; and Select Anconas, 100—$17.00; 500—$82.50. Special prices on 1,000 lots. Postpaid and 100% alive arrival guaranteed. Beautiful catalog free. Only 20 hours from New York City. RURAL POULTRY FARM, R. No. 1A, ZEELAND, MICHIGAN.

500,000 CHICKS

BEST BREEDS—Lowest Prices. Hatched by experts with 12 years' experience. Satisfied customers everywhere. 100 per cent. live delivery guaranteed. Catalogue Free.

THE KEYSTONE HATCHERY
RICHFIELD, PA.

PORAY'S CHICKS

Can furnish Pure Bred S. C. White Leghorns from Heavy Egg Layers, headed by Certified cockerels. Pedigreed chicks from Certified stock, also eight-week old pullets and up.

P. H. PORAY, R. 2. WILLIAMSON, N. Y.

BABY CHICKS

From 200-Egg Hens

Chicks from winter laying, farm raised, mature stock S.C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

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S. C. Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

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From carefully selected to lay flocks in BARRED, WHITE and BUFF ROCKS, WHITE and GOLDEN WYANDOTTES, BLACK MINORCAS, BUFF ORPINGTONS, S. C. and R. C. REDS, ANCONAS, WHITE, BROWN, BLACK and BUFF LEGHORNS, and Assorted for Broilers. Produced by men of many years' experience who know how to hatch good, strong, healthy Chicks. Fair prices. Postpaid, full live delivery guaranteed. Get our catalog and full particulars. Bank Reference. NEW WASHINGTON HATCHERY, Box A, New Washington, Ohio.

CHICKS WITH PEP, $11. Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off. Ready February 26th. Free catalog. Member I. B. C. A.

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WHITE ORPINGTONS	$25.00
BUFF ORPINGTONS	23.00
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WHITE LEGHORNS	18.00

We are now giving away a free brooder. Get your order right in, so as to get the benefit of this offer.

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BABY CHICKS

"Live and Grow Big"

White, Brown, Buff Leghorns, Barred and White Rocks, Rhode Island Reds, Anconas, Black Minorcas, Buff Orpingtons, 12c and up.
Write for free baby chick book.

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White Leghorns and Anconas. Our stock is scientifically culled by experts and headed by large vigorous males. Assuring you Strong, Healthy, Bred-to-Lay Chicks—that will live and grow. Real Money Makers. 100% live delivery guaranteed. Lowest Prices. Catalog Free.

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Hatched by the best system of Incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 18c. each; White Wyandottes, 22c. each; White, Brown, Buff Leghorns, 15c. each; broilers, 10c. each. Pekin Ducklings, 32c each. Safe delivery guaranteed by prepaid parcel post

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from heavy laying flocks that are true to name in Orpingtons, Wyandottes, Rocks, Leghorns, Anconas, Minoreas, and Reds. A REAL HATCHERY—not jobbers. We sell only our own hatched Chicks. Send your name for descriptive printed matter and right prices Postpaid. 100% live delivery guaranteed. Bank reference.

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S. C. White, Brown, Buff Leghorns	$15	$72	$140
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II. Select Breeders Stock, 100 Chicks, . . . $20.00
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We **Guarantee** to refund to the customer at the rate of one cent per chick per day on all orders that do not leave our hatcheries within 72 hours from the time specified. Write for our circular and **Low Prices** and place your orders this season where you will be sure of **Quality** and **Service.**

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PRICES—White, Brown & Buff Leghorns, 50, $7; 100, $13; 500, $60. Barred Rocks, S. C. & R. C. Reds, Anconas, B. Minorcas, 50, $8; 100, $15; 500, $70. White Wyandottes, White Rocks & Buff Orpingtons, Sheppards 331 egg strain Anconas, White Minorcas: 50, $8.50; 100, $16; 500, $75; mixed, 50, $6; 100, $11; 500, $50. Hatched from selected heavy laying flocks that are well fed and cared for, insuring strong, livable chicks that will make a profit for you. POSTPAID TO YOUR DOOR. ORDER DIRECT FROM THIS AD AND SAVE TIME. Catalog free. Reference, Geneva Bank.

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VARIETIES Prices on—	50	100	300	500	1,000
White, Brown and Buff Leghorns	$7	$13	$38	$62	$120
Barred Rocks, Black Minorcas and Anconas	$8	$15	$44	$72	$140
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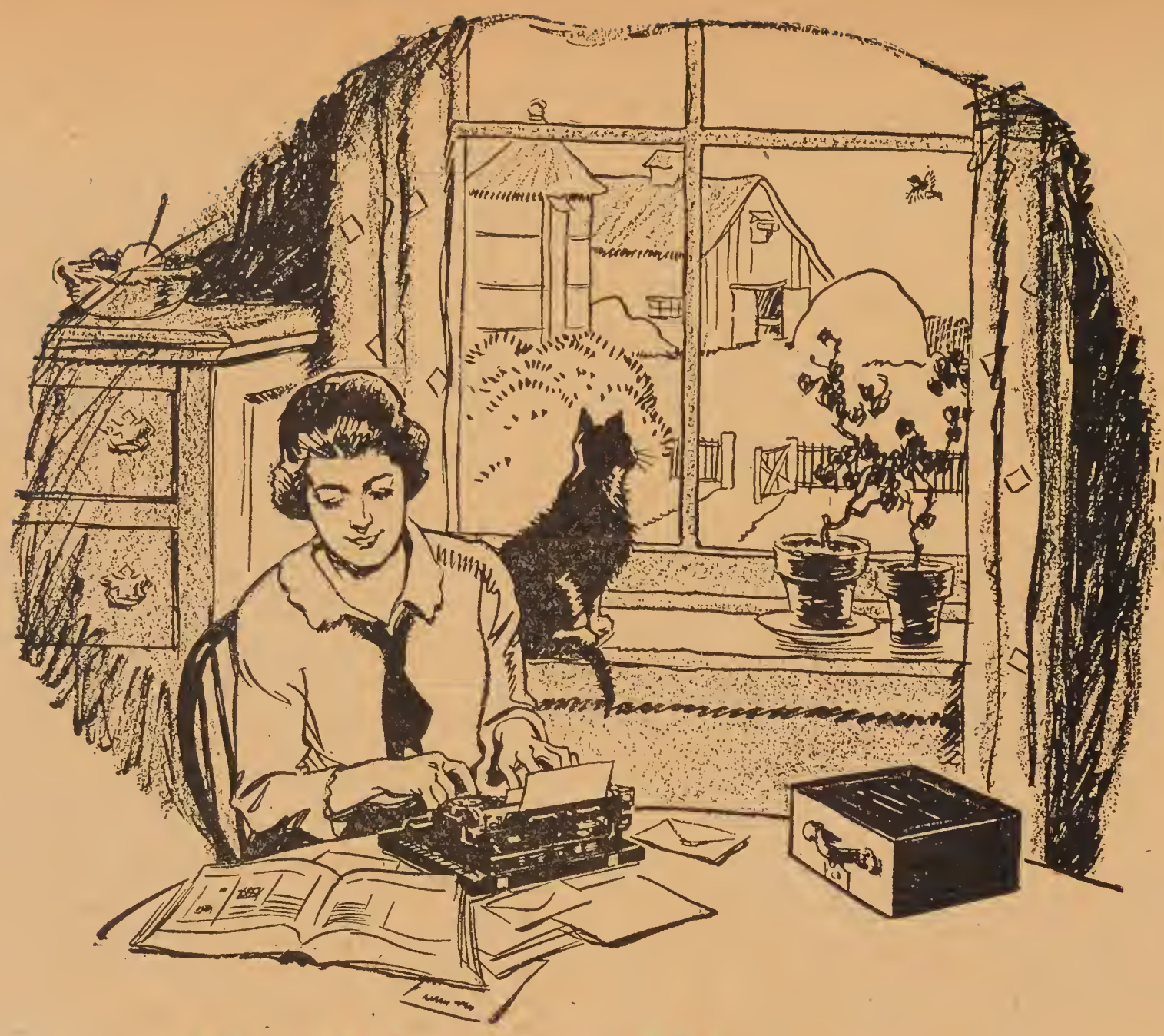

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VOL. 111 Founded 1842 No. 11

AMERICAN AGRICULTURIST

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"I'll Tell The World"

The 67th Congress and the Farmer—By Chas. W. Holman

Maple Sirup Organization "Coming Back"

Producers Undaunted By Early Difficulties

By F. E. ROBERTSON

FROM the earliest times, those who have produced more maple sirup and sugar than they needed for their own use have followed the practice of selling their surplus to customers in local towns. In the more remote districts the farmers have sold their sirup and sugar in bulk, but nearly always these bulk sales have been gathered up by organized dealers who set their own prices and established their own grades.

This unsatisfactory situation naturally led the farmers to consider the problem of developing a marketing association of their own. It is not an easy matter for farmers to set up overnight and successfully operate a cooperative marketing association. For that very reason it is not at all strange that some of these movements have either failed or have not, out of hand, resulted in wonderful financial advantage to those who participate. It is a pity perhaps that cooperative movements cannot all become a success at once. On the other hand, few practical men will fail to understand the responsibility they are undertaking, and most of them fully appreciate that to develop successful cooperative marketing enterprises, whether with maple product or any other product, will take years of careful organization work, economical financing, and efficient management.

The Outgrowth of Local Effort

Growing out of numerous local attempts to pool and market sirup came the movement in the fall of 1921 to organize a more or less State-wide maple producers' association. After many conferences and a considerable amount of personal work and canvassing, a total of 974 producers were signed up on five-year contracts to market their product collectively through a central association known as the Maple Producers' Cooperative Association, Inc. This association then went ahead and equipped itself with the necessary machinery and supplies to handle the business. During its first season a total of over 149,000 gallons of sirup was consigned.

Unfortunately, the first year's experience has not given the financial returns that the producers were led to expect through the statements and promises made by irresponsible agents who helped to secure the contracts. As a result, therefore, of these empty and unwise statements, together with some inefficient management and questionable judgment in financing and marketing the crop, it became nearly impossible for the association to function on anything like an economical basis. Situations of this kind are readily seized upon by those opposed to cooperation among the farmers, and are used in the way of propaganda to weaken and break down the confidence of the members.

Much that is bad in the present situation of the Maple Producers' Association could have been avoided. That their first big endeavor could not have been highly successful may be their misfortune, but neither a bad situation nor a temporary failure should detract them from their goal which is to build up a marketing enterprise which will make it possible for the farmers to sell to better advantage the products of their labor.

When the maple producers were organized, the members were not required to assume any financial burden other than to pay a $10 membership fee and to contribute 5 cents per gallon as a temporary working fund. Regardless of the lack of capital, the management went ahead and purchased supplies and equipment to the value of nearly $50,000. Nearly all of this money had to come from the sale of the sirup, and thus a charge which should have been spread over at least five years had all to be charged off against the first year's crop.

By a very crude plan of financing, so-called "trade acceptances" (notes payable) were

Covered buckets keep the sap free from twigs and other foreign matter

given the members when they delivered their sirup at the shipping point. These the members discounted at their local banks, in the main.

Apparently the supposition was that the sirup would be sold before these became due and they could thus be paid. But, as the sirup was not sold at the time of maturity, the trade acceptances had to be renewed for another period. The marketing was delayed, and again the acceptances began coming mature with no cash to pay them. Sirup had to be sold at a sacrifice in order to pay acceptances which could not be renewed. Many had to go to protest because of no cash to meet them. All of this caused confusion among the membership and some dissatisfaction. The association has been continually seeking an easy way out of these difficulties, but have not found any banks which could give them the kind of credit they needed.

Plan for Reorganization

As a last and final resort, the directors have now decided that unless the 974 members will themselves help to refinance the association through the purchase of the preferred stock in the amount of about $50,000 the whole movement will be given up and the equipment scrapped. Had the members been required to purchase stock in amount sufficient to pay for the necessary equipment, they would have to-day an investment in their own enterprise, and there would be $50,000 in the treasury of the association to pay up all of the outstanding trade acceptances (about $42,000), and there would have been little dissatisfaction.

The farmers of New York State and elsewhere are now about to witness an attempt of some 974 farmers to save their association and safeguard their future in the matter of developing a satisfactory market for maple products.

If these men have not the necessary faith in the undertaking, or if they lack confidence in themselves, the association will be disbanded. The equipment will be scrapped for whatever it will fetch, and whatever loss is sustained in the dissolution will have to be distributed among the members. If this endeavor fails, many years will pass before they can again muster the courage to attempt another similar movement. But there is no reason why it should fail. If half of the 974 men will lend their credit to their own association by taking up the preferred stock as an investment, all of the obligations can be met, and they will have a going concern equipped to handle all of the sirup in New York State, and one year of valuable, if not entirely satisfactory, experience. The situation is a direct challenge to the sincerity and courage of these men. They, and they alone, can save the situation.

Sanitary Method for Better Maple Sirup

THE maple sirup placed upon our markets exhibits wide differences in quality. The consumer who is unfortunate enough to purchase the poorer grades may contend that the product has been adulterated. This might be true in some cases, but in others it is likely that an inferior product is the result of improper methods of collecting and caring for the sap used in its manufacture.

The best sirup is always secured from the early run of sap, which is secured during the first part of the season, while the nights are cold and freezing takes place at frequent intervals, and before any active growth in the tree begins. Sap produced late in the season contains micro-organism, which have resulted from the development of the new buds and the reawakening of the life functions of the trees. These micro-organisms impart to the sap a disagreeable taste, which is commonly called "buddy." It is evident that changes which take place within the structure of the tree itself cannot be avoided, but there exist still other organisms which find their way into the sap after it has left the tree, whose action causes discoloration and degrade the sirup. These organisms include various forms of yeasts and bacteria.

The chemical composition of sap is such that it forms a satisfactory medium for the development of bacterial life if a suitable temperature for their growth exists. Thus, with the advance of the season, accompanied by rising temperatures, the growth and development of bacteria in the sap will increase accordingly.

(*Continued on page 243*)

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

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Volume 111 **For the Week Ending March 17, 1923** **Number 11**

A Doctor of the Old School

How Are Country Folks Going To Replace Men Like This?

By Mrs. R. M. ROBERTS

AS Mr. Van Wagenen, in a recent issue of the American Agriculturist, told so pleasingly and well of the life of a country minister—"one who preaches"—let me tell a very little of the life of a country doctor I know—"one who practices."

The country doctor is fast passing away. The young doctors are locating in or near the city, so as to be handy to the hospitals, the libraries and lectures. Years ago all the small country towns, and even hamlets, had their doctors. Now where are they?

A young doctor, whom we will call Dr. Brown, settled over thirty years ago in a small village. In all these years, and in years to come, we hope his sturdy horse in winter and now, of course, his auto in summer travels over and over these same roads.

What a life his has been! He perhaps — ever busy — does not think it such a wonderful one, but in all these thirty years or more only twice has he turned back when he started on his trips. Once, in 1888, when a fearful storm blocked all the roads, and the other time, also in the winter, when he tipped over and smashed his cutter. Think what a record, going from Jerusalem to Jericho, and, no matter how cold the weather or bad the storm, never turning back.

I said to him one day: "Well, this has been a dreadful day, doctor."

"Has it?" he remarked absent-mindedly, measuring out medicine meanwhile. "I have to go out every day, and I've got so I never notice the weather."

Once in the winter time my husband was taken sick with a bad chill, was out of his head, etc. I sent for the doctor to come next morning. The roads were drifted full, with hardly a sign of a road to be seen. After an all-night vigil, I stood by the window looking out, my heart very heavy, for it did not look as though anyone could get through. Bells sounded up the road, and there was Dr. Brown, his horse wallowing through the drifts, the doctor plunging alongside, one hand on the reins, the other steadying the cutter. From zero my spirits rose to fever heat. The doctor put his horse in the barn and, brushing the snow from his feet, came in to warm his hands by the kitchen fire.

"Darned good roads you've got this way," was his only comment. Dr. Brown is possessed of an unfailing fund of good nature. You wonder after his visit whether he or his medicine helped you most.

When a young mother, trembling with terror of the unknown, dreading the birth of her first-born, telephones Dr. Brown, does he say carelessly: "Well, call me again when you think you need me." No, indeed, he comes at once, and more than one young mother can tell you how Dr. Brown stayed by, and helped, and comforted, and encouraged her through her hour of trial, and was apparently as pleased as she when it was safely over.

Many strange, true stories he could tell if he wasn't such a busy man.

When John Smith was all torn and mussed up in a fearful accident, after Dr. Brown got there, did he try a few remedies and then say: "Hurry him to the hospital; I've done all I can," and so shift the responsibility? No, he thought of John Smith's family and of what he would say to his wife, and redoubled his energies and thought. For three long hours he could not feel one sign of a pulse, but he just shut his teeth and worked and kept on working, with the result that John Smith is on earth to-day just as good as ever. Was that all he did? Oh, no. He came the next day and helped fix a truck to put John's cot and John on it, and move him to his own home, and then, because there wasn't anyone to help John's wife get the clothes off him and his night shirt on, Dr. Brown went right to work and carefully cut away coat, shirt, and trousers and underwear, for John's wife was so fearful of what might be found underneath she dared not do it alone.

Then there was the time they took Jay Wright's wife to the hospital in convulsions, and Dr. Brown went right along with her. After the doctors at the hospital had consulted together, they said: "Well, we can't operate now because of so and so, etc.; our professional reputation, you know, etc." Dr. Brown said promptly: "All right, then, I'll operate. I don't give a d—— for mine," and operate he did, and as a result the mother and child are both living to-day.

I remember also the time he arrived on the scene just as Bessie Breen's baby was born and the distracted father was wringing his hands because there wasn't a woman on the place, and what should he do — go for her mother to dress the baby?

"Mercy, no," said Dr. Brown. "Don't wake the old lady up this time

(*Continued on page* 246)

May His Number Increase in the Land

LAST summer we were visiting on a farm three miles from the nearest doctor. Little three-year old Bobby found and ate several green apples, which made him terribly ill and threw him into convulsions. Rushing to the telephone, we called the country doctor who, through the winter and summer storms of more than half a century, had been riding the hills and valleys of that countryside. Although he is an old man, in an almost incredibly short time he had crossed the range of hills and was coming down the road. As we saw him coming, and as we later watched his skillful fingers relieving the baby of the terrible pain, we thought of the many, many times he had brought similar relief and joy into hundreds of farm families, and we again had some appreciation of the feeling of love and gratitude of farm people toward their country doctor.

The splendid story of Dr. Brown, told so well on this page by a country woman, is the story of nearly all of the members of that great profession "who practice." Somehow or other, the grim demands and circumstances of their business, early weed out those of the profession who lack skill, courage or manliness, so that even though the doctor sees much of the seamy side of human nature and of life, he still is, almost without exception, an efficient workman, a jolly friend, a philosopher and "a very present help in the time of trouble." We are sorry that the number of country doctors is becoming less. What can we do to make it more attractive for him to stay with us? Any practical suggestions in the form of letters will be welcomed by American Agriculturist and paid for if we can use them.—The Editor.

Drifted roads and the darkest nights hold no terror for the country doctor. He manages to get through and make little or no fuss doing it. It is a part of the game

Editorial Page of the American Agriculturist

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More Local Control in School Bill

WHEN the Committee of Twenty-one began its work three years ago it was agreed that any recommendations it might make for school improvement must be based upon the plain, common-sense educational needs of country people and their children. The committee went at its work determined to be guided by the facts and not by any prejudice or educational theories or "frills." To get the facts, hundreds of meetings were held where school patrons discussed pro and con the rural schools. Educational experts were employed by the committee and sent into nearly every rural county to learn first-hand what the problems of the local schools were, if any. All of the information obtained from this two-sided survey was reported back to the committee and from them certain conclusions, the more important of which we mention below, were drawn.

First—The district school has been a tremendous factor in American development. In some cases, however, rural people gave the school credit that should have gone to the country home instead.

Second—Rural schools as a whole have not kept up with progress with that made along other lines, so that country children are not getting in them an education in proportion to the cost of maintaining them.

Third—Because there are so many district schools rendering good work, and because of the difficulty of transporting children to larger schools in some sections, the committee recommends that district boundaries should be left as they are and that no consolidation should take place except by local vote. Under the present law, the State Department of Education and the local district superintendent can force consolidation.

Fourth—Because the administration of schools is essentially a local matter, the committee's suggestions provide for more local control, but they make this local control more worth while and more effective by operating it through a community school board whose members shall be elected by the different districts in the community. The boundaries of each community are to be determined by a local commission.

Fifth—Because the committee found gross unfairness and inequalities in the tax rate of different districts having the same school facilities, it suggests that the tax unit be enlarged to the community instead of the local district, as it is at present. And it further suggests a larger financial aid for country schools from the State.

Sixth—The committee found many capable and self-sacrificing teachers at work in the country schools, but, on the whole, it also found that the country schools drew the poorer qualified teachers and that the better teachers gravitated toward the cities. Because of this the committee's suggestions provide for special courses in the normal schools for country teachers and for State aid for teachers who make a business of working in the country schools.

These suggestions are incorporated in the Education Bill which has been introduced in both Houses of the Legislature. The majority of the farm people who have attended the hundreds of meetings that have been held, and who have really made an effort to study these suggestions, have approved them.

Since the beginning of American history, the fundamental principle that farmers have insisted upon is an education for their children. The little log schoolhouse was as much a part of the rural community as was the church. The spelling matches, the debates, and the social affairs held in the community schoolhouse in the old days shotw how the interest centered there.

The farm people of to-day are as alive as they ever were to the need of education. There are few farm parents who will make enough in the lifetime work on the old farm to leave their children very much money, but it is a rare parent indeed who does not want his child to have every right educational advantage and who does not wish to leave to his child something better than money, something that "moth nor rust cannot corrupt nor thieves break through nor steal."

Maple Producers Reorganizing

FOR some time there has been considerable dissatisfaction regarding the operations of the Maple Producers' Cooperative Association, which has its headquarters at Syracuse, N. Y. Because the success or failure of one cooperative organization more or less effects all the others, and because affairs of the association have been misrepresented by its enemies, we asked Mr. F. E. Robertson, who has just become manager of the association, to give us a full statement of the exact situation existing in the maple producers' organization. The absolutely frank and full discussion by Mr. Robertson on another page of this issue shows the determination of most cooperative leaders to take the members of their organizations entirely into their confidence.

Mr. Robertson is, by the way, also the manager of the New York State Sheep Growers' Cooperative Association, which is in many respects the most successful cooperative in the State.

Without question, the maple-sirup producers have considerable reason for being discouraged with cooperation. Still, when a man takes the wrong turn at the cross-roads and learns his mistake, he returns to the base, takes the proper turn, and keeps right on going. So it must be with a member of a cooperative which has trouble. If he is wise, he will do his part to correct the mistakes and start again; if he stops, he has lost the value of the experience and will make no progress in any direction.

It is inevitable that with the large number of cooperative organizations which have been established in the last few years that some of them will, because of overenthusiasm and a desire for too much speed, make bad mistakes. Cooperation in itself is not a cure-all for all the difficulties of marketing. If it is not founded and run upon good business principles, it will not help to establish better markets for farm products. On the other hand, the fundamental principle of cooperation is too firmly established to be open to argument. The maple producers are better off together than they are going it alone.

An opportunity is being presented to these producers to reorganize on better principles and especially to establish their market activities upon a sounder financial plan. This plan is being presented to the different members, and we are informed that a large majority of the members are in favor of it. To quote the words of Mr. Robertson: "The situation is a direct challenge to the sincerity and courage of these men"; and we might add that the way in which these members respond to a discouraging situation is a direct test as to the future of the whole cooperative movement.

Team Work

IN NEW YORK, the State Grange, State Federation of Farm Bureaus, State Horticultural Society and the Dairymen's League have worked together for a number of years on common problems in an informal organization known as the New York State Conference Board of Farm Organizations.

At its last meeting a significant step was taken when the New York State Federation of Home Bureaus was invited to become a member of the Conference Board. Much is due to the women for the success of the farmers' private and public business, and it is certainly right, therefore, when the importance of women's influence and work is recognized in asking her organization to join hands with the others for the good of the farm and the farm home.

There is also another conference group in the State, called the Cooperative Council. This is made up of commodity marketing organizations like the Apple Packing Association of Rochester, the Wool Growers', the G. L. F., the State Holstein Association and many other groups that are engaged in helping the farmer to solve his marketing problems. Both the Cooperative Council and the Conference Board hold frequent meetings to discuss measures and take needed action.

At the last meeting of the Conference Board, during Farmers' Week at Cornell, it was voted to ask the chairman and secretary of the Cooperative Council to represent the commodity organizations as voting members of the Conference Board and vice versa, it was suggested that the chairman and secretary of the Conference Board should represent the Board, in meetings of the council as voting members. This action ties up and brings together practically all of the organizations of the State into one great body, mobolizing the tremendous agricultural power of the whole State in one cooperative army to speak and work for the individual and collective interests of practically every person in the State interested in agriculture.

Quotations Worth While

Experience keeps a dear school, but fools learn in no other.

* * *

If any one speaks evil of you, live so that none will believe him.

The 67th Congress and the Farmer

A Review of Legislation Efforts to Aid Agriculture to Come Back

By CHARLES W. HOLMAN

THE Sixty-seventh Congress broke all records. It took four sessions, occupying more time than any other Congress in American history. More than 15,000 bills were introduced and several hundred passed.

As one reviews its activities it becomes apparent that farmers had more requests granted than any other group. They won many victories. Their efforts were frequently successful, both in the enactment of legislation and in killing bills antagonistic to their interests.

There were two reasons for this unusual congressional sensitiveness to farm opinion. The economic depression which was in full swing at the beginning of the Harding Administration forced the condition of the farmer upon political leaders. Like the ghost of Banquo, it insisted upon coming into the meeting. As long as the condition of the farmer was unalleviated, Western congressmen from the agricultural districts showed a marked lack of enthusiasm over passing any other type of bills.

The second reason is not hard to find. For several years the influence of farm organizations at the capital has been growing. Farmers have been learning to work together for national legislation. They have followed in the footsteps of organized business which years ago saw the wisdom of establishing offices with competent representatives and information-gathering experts to watch the Congress, lobby for their own measures, lobby against most everything else, and plead with the executive departments in matters involving policies or decisions.

Farmers began this modern method of legislative action when the United States entered the war. In 1917 a group of the old-line farm organizations and some of the commodity cooperatives formed the National Board of Farm Organizations. This agency did much valuable work and has continued as an important force in the life of the capital. A few months later the National Grange created a Washington office, and its representative has been active throughout the years. In 1920 the American Farm Bureau Federation opened a Washington office with a staff that devotes itself to the daily study of farm problems and fights for agricultural legislation. A more radical group, known as the Farmers' National Council, and representing the idea of effusion between farmers and labor, has also been at the capital for many years. Other farm organizations and live-stock associations from time to time maintained offices at the capital.

Several Organizations Represent the Farmer

One might think that the presence of several farm organization representatives would result in a duplication of effort, in conflicts, in needless expense. But the reverse is true in actual practice. The sum total of the farm staffs at Washington numbers less than any of the well-organized industries, like the American Manufacturers' Association, the National Canners' Association, or the American Association of Railway Executives. It requires almost the entire attention of one man to forward the interests of a single bill if he does his job efficiently, and with a number of measures pending that effected the agricultural interest, the Washington representatives learned to work together and to coordinate in some measure their efforts to prevent duplication and still take care of all the bills. It was a division of labor, so to speak. And so, instead of confusion and irritation, farmers have benefited from a cumulation of effort.

Strength Not Appreciated at First

When the first farm office was established the congressmen really new very little about farm organizations, their relative strength, their policies, and particularly the accuracy of their statements. Friendships had to be formed, alliances made. It was also necessary to educate the congressmen to the fact that farm organizations are evolving a program of legislation based upon a sound national agricultural policy.

In time the combined efforts of farm-organization representatives produced some results. In both Houses were found groups of agriculturally-minded statesmen, but they were a lonely lot. But when they found that the organized farmers stood ready to back their efforts, these men got together into informal organizations which the press promptly dubbed "farm blocs." They were not, however, farm blocs in the sense that the men elected were farmers, for most of them were lawyers and bore to their farmer constituents only a friendly relationship.

These blocs were savagely attacked by the representatives of nonagricultural interests. They were enthusiastically defended by the farm organizations, and the publicity given them tended to cement their members into something resembling solidarity.

But the legislative record would not have been so satisfactory if the farm organizations had depended solely upon the so-called farm blocs for the enactment of certain types of legislation depends upon the utilization of modern methods of publicity and upon a coordination of effort which reaches back to the rural community itself. In other words, a machinery of expression had to be set up in connection with almost every bill. This machinery operated so that senators and representatives heard not only the views of the farm spokesmen, but the wishes of their constituents even from the remoter hamlets of the nation.

When the Harding Administration began its work with the calling of a special session on March 4, 1921, a few important farm measures had been hanging over for several years and a number of pressing problems faced the legislators. President Wilson had just vetoed the bill reviving the War Finance Corporation, and the Congress had passed it over his veto. He had also vetoed the special Agricultural Emergency Tariff Bill, and passing this bill was one of the first definite acts of the new Congress.

Then followed in rapid succession the following bills:

1. The Packers' and Stockyards Control Act, setting up a special administration to supervise stockyards, meat-packing plants, and live-stock commission firms.

2. The Grain Exchange Control Act, prohibiting tax on certain types of grain speculative trading. This act was promptly contested by the Grain Exchange and a suit through the courts, and they succeeded in getting a part of the act declared unconstitutional. The authors of the act immediately introduced another bill for the purpose of curing the legal defects, and this bill was passed very speedily.

Farmers Authorized to Cooperate

3. The Capper-Volstead Cooperative Act. This act authorized agricultural associations, corporate or otherwise, to form under the laws of their respective States. It placed them under the initial jurisdiction of the Secretary of Agriculture, whose duty it is to hear complaints when cooperators are charged with enhancing prices. Should the secretary find that the evidence justifies complaints, he is authorized to proceed to prosecute under the terms of the Sherman Anti-Trust Act. This law has been declared the "great charter" of cooperative liberty in America.

4. Two amendments to the Federal Farm Loan Act. While the Farm Loan Act was in litigation Senator Curtis of Kansas introduced a bill which provided for an advance to the Federal Land Banks of $50,000,000, to be used by them as a revolving fund for loans on land mortgages under the act. The House cut this amount in half and the Senate accepted the amendment. Another bill authorized member banks of the Federal Farm Loan System temporarily to sell their bonds at 5½ per cent instead of 5 per cent, provided these banks did not charge farm loan borrowers an interest rate higher than 6 per cent.

5. The Federal Highway Act. By this law the Federal Government elaborated its policy of assistance to States in the building of good roads. It created a dual system known respectively as interstate and intercounty highways, three-sevenths of the money to be expended is on the interstate system and four-sevenths on the intercounty system. The thought behind the present act is that Federal aid shall automatically continue until 7 per cent of all complete highway projects in each State shall have received Federal aid.

6. Permanent Tariff Bill. Agricultural products received a general and higher protection in the permanent tariff act than ever before in history. Wool and dairy producers benefited especially from the act.

Dairymen Get Bills Through

7. Butter Standards Bill. Congress in its closing days passed a bill defining and establishing standards for butter. This bill

(*Continued on page* 251)

The 67th Congress

PROBABLY never before in history, certainly not in many years, has agriculture and its problems had the discussion and the consideration in Congress that it received in the session just closed. As Mr. Holman so well points out in the article on this page, consideration of farming came first, because it was needed and second, because the farmers of America are organized as never before to bring their needs to the attention of the Government and the public.

A careful reading of this article will impress one with the large amount of legislation which was passed of vital importance to agriculture. There was for instance the Filled-Milk law, which farm organizations worked so hard and so long for, which will mean millions to the dairyman and much to the health of the general public. There was the credit legislation for farmers passed during closing hours, and again there is the Capper-Volstead Act, putting the seal of Government approval upon cooperative enterprise.

In spite of the great importance of these laws and the many others of almost equal importance, we cannot but again call the attention of our people to the fact that in general, evils cannot be legislated out of existence. Good laws will help and Congress has done about all that it could, but after all the real solution of the farmers' many and difficult problems lies with the farmers themselves.—The Editors.

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Tomorrow Is Another Day

Let's Forget Spilled Milk and Water Over the Dam

By H. E. COOK

IT has seemed to me of late that we are spending altogether too much energy—and that is equivalent to time and money—in an effort to find out what is the matter with us; or, really, if there is anything at all the matter, and to imploring outside agencies, chiefly legislation and cooperation to bring things up to our ideal of what they should be. The whole thing is nothing more or less than a type of gambling, which, further analyzed, is to get something without patient, steady, unadulterated hard work.

H. E. COOK

Then some one asks me if I am opposed to present-day methods through the above-mentioned channels to help us. Not by any means. God speed the good work, but I am unalterably opposed to leaning upon them and letting up at home. The cold, hard facts are that those who have done their whole duty at home are living as well as, and most of them better than, ever before.

I don't mean to measure the successes and failures in periods of single years, but in half-decades, or, perhaps, in ten years. Few of us are fitted to fairly judge these things. I have days and longer periods when I am sure the trend of farm living in its fullest and broadest sense is going backward. And I can prove it by any number of cases. Then a turn comes in business at home and all seems to be reversed, and I can as surely demonstrate that agriculture is making wonderful strides.

I can see that applied science has taught us how to feed our cattle, and during my memory hollow horn, wolf in the tail, or horn distemper, have gone, and none of the younger generation will know what I am talking about.

Wormy and scabby apples were common in that same early day. Now they are not salable for cider. During this same period animal heat and flavor have largely been eliminated from milk. I claim to be one of the original chocolate men, at any rate the froth on the milk pail had every appearance of being covered with something of a chocolate color. To-day we are producing milk so clean that a miscroscope almost loses its conceit when trying to find bacteria in it, and I have sold cheese in 1879 for one-third as much per pound as this milk brings per quart. In 1878 we hired a man for $13 a month and his keep, in 1879 he worked for $14, and in 1888 this same man received the munificent sum of $15 a month, or $180 for the year. Now our men average nearly six times as much.

Of course, the supplies are higher, too. But I feel quite sure that most farmers whose memory covers 50 years or more of business life will agree that our best bet for success is during periods of comparatively high-labor costs. We distribute a portion of our certified milk in nearby villages retailed from a market where customers take it home under their arm. In the manufacturing village of Carthage, 23 babies are at present being fed, and in 10 of these homes the father goes to work each morning with a dinner pail, and he pays 20 cents a quart just the same as the other 13 customers.

Good Wages for the Laborer

It is obvious that I am in favor of good wages for laboring men. I do not think it has any bearing on the case, but it may be interesting to know that four of the ten are Italians. I must confess when I pay bills for repair work from plumbers and iron workers, I have to draw upon a stored-up feeling that we have a proper adjustment. After the bill is paid, however, I realize that they only come occasionally, while I am selling milk 365 days in a year.

I hope we are not losing that old-time pioneer necessity of digging in harder and deeper, each one of us, when times appear to be against us. There is absolutely no other plan that will take the place of hard work. Now, hard work is not alone slaving on things we have done all of our lives. Nor is it necessarily doing a full day's work in the field and doing the chores before and after, which is measurably, and sometimes wholly, responsible for the exit of pretty nearly every laboring man from rural sections. Especially this is true where there is a family to care for.

No, the hard work may come in working out methods that will shorten the working day by elimination of wastes of all sorts, better systems of movement with applied facilities, carrying feeds to poor stock, seeking the cheapest ration for the largest net return, working out field seeding and cultural plans, perhaps the production and sale of some crop not generally sold in the locality. Hard work may come in better bargaining or through vision into the future.

It is surprising when one comes to focus his entire mental outfit on some particular part of his business, how he can make things come his way. What do we call this power — autosuggestion, positive suggestion, or something of that sort. I expect a good deal of the hard times in the West have come out of the high prices paid for farm lands. When land has a market value of from $400 to $600 an acre and actual sales are made at these prices, the impression goes out at once that boom times have come. These prices were nothing more or less than gambling to such an extent that when the bubble burst it would become a crisis for a good many people. If farmers expect prices of crops to be adjusted on these values, I am afraid they will be disappointed.

The great producing areas of the world are too large to permit, unless it be for crops for nearby city markets. New York has felt humbled, agriculturally speaking, because our farming lands had only a mild form of speculative advance. But now, when the squeeze is on, we feel thankful that we jagged along about as of yore. Every business has had about the same expe-

Wasted Energy

THERE is a story of a man who started in the morning for his place of business feeling well and full of enthusiasm. Previously, several of his friends had agreed to try a practical joke on him. So, on this morning they met him, one by one and each made some different but plausible remark to the effect that he was not looking well or asking him if he was ill or telling him that he ought to be home in bed. The first remark of this kind dampened the man's enthusiasm a little; the second made him begin to wonder if he were really well and by the time his fifth friend had remarked on his ill health, he concluded that he was a sick man, returned home and went to bed.

Mr. Cook's article reminds us of this somewhat exaggerated story. More and more folks are coming to realize that mental attitude makes considerable difference with one's health and with one's business. Of course farmers have had and are having hard times. There is no doubt about it, but as Mr. Cook so well points out, there has been considerable energy wasted by farmers themselves and by their would-be friends trying to tell us how sick the farm business is or trying to get help from outside agencies. It seems sometimes that so much of this talk has a tendency to further discourage us and to make us look too much for help from the outside which will never come.—The Editors.

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rience, and the only way out is to charge off the loss and begin over.

I received a letter recently from a Canton, N. Y., man who ships horses from Dakota and written from there. He says: "Conditions, I think, are a little better than last year. Can't say as prices are any better, or any more money in circulation, but they are getting used to closer times." What I am saying in no way disguises the fact that farm products prices, especially cereals, were officially kept down at the outset of the war, while many other products were allowed at a cost-plus plan. All that sort of troube has gone, and the spilled-milk philosophy applies. Now we must charge up our losses. quit finding fault, go to work, back up our great national organizations and begin to dig into better farming and dairying than ever before, and we will soon pay up our losses as the French did the war indemnity following the Franco-Prussian war.

Maple Sirup Organization "Coming Back"

(*Continued from page* 238)

Therefore, in order to avoid inoculation of the sap during the latter part of the season, remedial measures in the way of sanitation are necessary if the quality of the sirup is to excell in all respects.

Sanitation as Essential as with Milk

The same methods of sanitation apply in the production of maple sirup as in the production of pure milk. All utensils used must be kept clean and free from dirt or other harboring places for bacteria. Metal buckets and gathering and storage tanks are superior to wooden ones. The development of bacteria can be checked by frequent collections of sap and immediate concentration by boiling.

Covered buckets keep out rain and snow, which may carry impurities from the air or from the branches and trunks of the trees. They also prevent broken twigs and bits of bark from falling into the sap, discoloring it and introducing bacteria which may be adhering to them. Bacteria may accumulate in considerable numbers in the tap hole, and the rimming out of the holes as the season advances may remove a great deal of contamination from this source.

Retapping in the Later Season

Another method of eliminating damage from this source is to retap the tree toward the latter part of the season. This gives a fresh run of sap free from bacteria, and if the spouts and buckets are cleansed at the same time, and the sap collected frequently and boiled immediately, may yield a product of quality equal to the sirup from the earlier runs of the season.

Sap which must be held in storage before boiling should be kept as cool as possible to prevent the increase of bacteria. For this reason the storage tanks should be outside the sugar house.

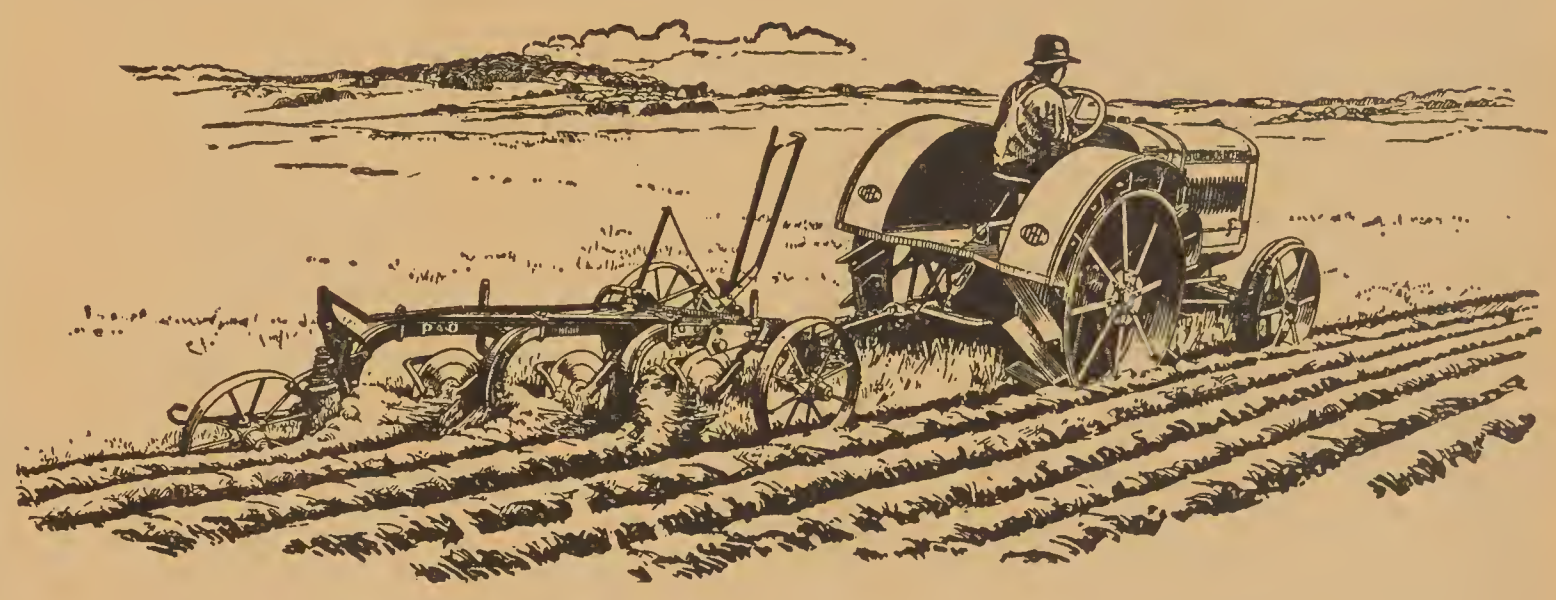
The observation of the above suggestions should not materially increase the cost of producing maple sirup, and, on the other hand, should prove of value to the maple-sugar industry by helping to maintain a marketable product of high standard quality.—BENSON H. PAUL.

Renting Systems Changing

An interesting development coming from the hard times which farmers in the Central West are having, is the change from a cash rent to a share basis that is taking place in operating farms. A recent survey made by the United States Department of Agriculture in Indiana shows that in one county 87 farmers were reported as renting for cash in 1920, but that this method of renting has practically disappeared since that time. In another county where there were 340 cash rented farms, more than half of them have changed to a share basis. Many farmers who contracted to pay large rents in 1920 and 1921 have lost everything. Cash rents ranging from $7 to $12 an acre in 1919, have been reduced $7 to $10 an acre. The landowners have suffered too, for after the tax and repair bills were paid there was not much left.

I never was more pleased with your paper than now.—Charles D. Rhodes, Hempstead, N. Y.

McCormick-Deering 15-30



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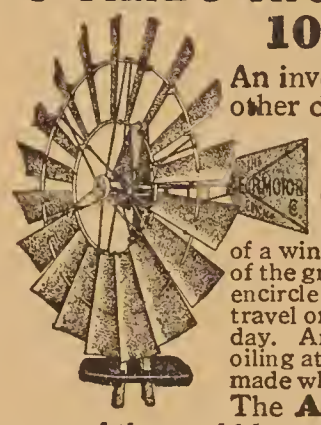

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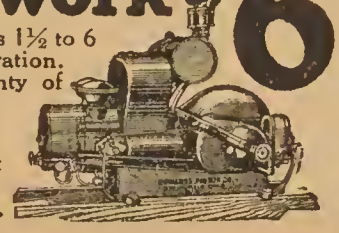

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The Technique of Plowing

And Spring Management of Early Vegetable Plants

By PAUL WORK

THE management of tillage operations presents delicate questions on any farm. On the vegetable farm, the stakes are larger and the effects of small errors are recorded in time of maturity and in quality as well as in yield. The grower who seeks to serve the early markets is oft-times tempted to plow too soon at the risk of bad physical condition which may take a season or more to correct. Especially is this true of the heavier soils. On the other hand, delayed plowing, on light as well as heavy soils, means wasted moisture and a less favorable opportunity for the decay of green material or refuse that may be turned under.

PAUL WORK

The technique of plowing means much in vegetable production. A few furrows badly turned will leave roots and other plant remains near the surface to trouble the cultivator throughout the season, and, in addition, weed seeds are close to the surface and ready for unhindered germination and vigorous growth.

Some of the problems of spring plowing are solved by doing the work in the fall. For early crops this is especially desirable, as green material has ample time for decay, and there need be no delay in making final preparation for planting. Fall plowing also leaves the soil in good shape to take in the water of rains and melting snows. It exposes the soil to frost action, disturbs many an insect when he has just settled for his winter nap, and it also helps in adjusting the year's distribution of labor.

Good plowing is important. A few poorly-turned furrows will make trouble for the cultivator all season

Plows — beam, sulky, side-hill, disk and one-horse; harrows—disk, spring-tooth, spike-tooth, acme and meeker; roller; plank-drag; clod-crusher; these and more are to be found in implement warehouses to tempt the buyer. Once bought, the chosen ones stand in the implement shed (we hope they do), each raising the question as to which shall be used for each tillage job. One is foolish to buy all, and the selection of a list must depend upon the soil, the crops, the type of farming and the man. Possibly as universal a combination as any would consist of plow, spring-tooth, spike-tooth and plank-drag, the latter home-made. The disk harrow and the meeker are likely to be early additions to the list. The former is especially useful on fall-plowed land and when land is to be prepared for a second crop. It also finds usefulness when green material or refuse, such as corn stubble and asparagus tops, are to be chopped up preparatory to turning under. The meeker is a wonder when it comes to preparing a fine, smooth, level seed-bed for small crops to be sowed with the garden drill.

Hardening Early Plants

Early cabbage plants are set in the field about as soon as the ground can be gotten ready in the cooler parts of the middle Atlantic States. This means April 5 to 15 during most seasons. As one approaches the coast or goes south, the time is earlier. When plants are put out thus early, they must withstand severe frost and even freezing weather, and they must undergo occasional bad storms which whip the plants about in anything but kindly fashion. Nevertheless, a well-grown cabbage plant will withstand these conditions and will make immediate recovery and rapid growth as soon as the weather improves. This means that the plants must be well hardened.

Hardening is accomplished by careful control of the conditions from the time of the first transplanting, perhaps four or five weeks before the time of field setting. It is well, even while the seedlings are developing, to have the greenhouse cool and to water sparingly. Then they stand the shift well and can be placed in cold frames immediately after pricking out, thus releasing greenhouse space for the starting of tomatoes or other plants. Once in the cold frame, the process of hardening involves a gradual decrease in water supply and temperature and a gradual increase in ventilation. A week or 10 days before field setting, sash should be left off all night unless a very severe freeze is threatened.

No set of directions can tell a man how to harden plants. The details must be gained through experience. Cabbage is a good plant to practice on, as it is naturally quite hardy. There need be little difficulty in holding the plants in the frame for 10 days after the earliest probable setting date, provided they have been kept short and stocky.

Hardening of tomato plants is fully as important as the hardening of cabbage plants. While tomatoes are not expected to withstand frost, they must frequently face severe storms and cool nights. If not properly hardened, they are checked in growth so that they recover slowly and maturity is gravely delayed. Also, if they are overhardened, they will be slow in "getting away." The task is somewhat more delicate with the tomato than with cabbage, but the principles are much the same.

Sowing Field Beans

Dr. E. V. Hardenburg at Cornell Farmers' Week recommended shallow planting for beans. "Come-up" is one of the great limiting factors. Shallow planting makes for quick results. Also, seed corn maggot is worst when seed is planted deep in heavy soil in a cool, wet season. These are all factors that make for slow come-up.

Another point was in favor of heavier sowing of pea beans. Experiments give heaviest yield at six pecks, but this is too costly for economy. Usual practice is about three pecks and four pecks is recommended. Kidney beans do not seem to respond so well to heavier sowing.

Treat the seed oats for smut.

Corrosive Sublimate
applied with my maggot gun or watering can is the quickest and most efficient way to fight maggots on the roots of cabbage, radishes and other plants; pays for itself in a few hours; been tried and made good; directions given. Price of machine $2.00 east of Mississippi, beyond and to Canada $2.25 postpaid.
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Can You Afford to Buy Fertilizer on Credit?

BY W. I. MEYERS

IN an effort to reduce the amount of credit business, fertilizer companies are offering more liberal discounts for cash this year than ever before. This offers the business farmer an unusual opportunity to reduce the cost of his fertilizer. The base price for fertilizer this year is for payment October 1. From this base price a discount of 5 per cent is allowed for payment July 1. If payment is made before July 1, an additional one-half per cent discount is given for each month before July 1 that payment is made.

If cash is paid for fertilizer with order or at time of delivery (sight draft), an extra discount of 2 per cent is allowed, *in addition* to the other discounts. If you buy fertilizer for delivery between March 15 and April 1, the discounts for cash would be as follows:

	Per cent
Discounts for payment on or before July 1	5
Additional discount of one-half per cent per month if payment is made April 1 (3 months)	1½
Extra discount of 2 per cent for cash with order or on delivery	2
Total discount for cash payment on or before April 1	8½

This 8½ per cent discount is given for paying six months ahead of the credit payment date, October 1, and therefore is at the rate of 17 per cent per year. Looking at it the other way, the man who buys fertilizer on credit is paying at the rate of 17 per cent per year for his credit. Can you afford to do it?

Good Credit Standing an Asset

The fact that money is scarce at this time of year need not prevent anyone from paying cash for his fertilizer if he has good credit standing at his bank and is able to borrow the money there. If the money is borrowed at the bank, the interest cost for six months would be 3 per cent, leaving a discount of 5½ per cent *above interest.* The cash discounts for other times of delivery are proportional and can easily be determined. For fertilizer to be delivered after April 1, but before May 1, the cash discount would be 8 per cent, and for delivery after May 1, but before June 1, 7½ per cent. These discounts are for less than six months, and the rate per year is therefore even higher than 17 per cent.

The fertilizer companies cannot be criticized justly for charging high rates for credit. The business of the fertilizer company is to sell fertilizer, and it can do that efficiently. It is not the business of the fertilizer company to extend credit to thousands of farmers scattered over several states.

The Best Place to Get Money

The best and cheapest place to borrow money is usually at the local bank. The banker, who has personal knowledge of farmers in the surrounding region, can lend them money with less loss and at less cost than any outside commercial organization. It is doubtless good business for the fertilizer companies to offer generous discounts for cash. It is certainly good business for the business farmer to accept them and to borrow at the local bank, if necessary, in order to do so.

New York farmers spent $15,000,000 for fertilizers in 1919. With lower prices, they will doubtless spend at least $10,000,000 for plant food in 1923. If every farmer paid cash for his fertilizer, the saving *above bank interest* would be about 5 per cent on this amount, or $500,000. Arrange to pay cash on delivery for your fertilizer and save your share of this amount.

I have been a reader of your paper for 30 years and like it very much. I think it is the leading all-round farm paper. I make it a point to read it all through. I particularly admire Dean Cook's and also Van Wagenen's articles, and think Editor Eastman has been a great help to the old reliable American Agriculturist. I have faith that you will do all in your power to help us poor farmers.—G. H. Swaze, Otselic, N. Y.

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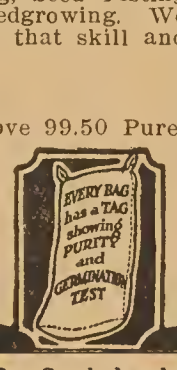

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Increases fertility

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Increases hatchability

Hatchability is possible only to strong embryo chicks. If they have inherited the strength of a yeast-fed hen, they will break through and there will be less dying in the shell.

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Greater vitality and less loss are found in the young chicks fed early on a mash containing Fleischmann's Pure Dry Yeast. Leg weakness and white diarrhea are prevented.

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Fleischmann's Pure Dry Yeast comes in 2½ pound cans, containing 117 tablespoonfuls, or enough to last 10 hens or 50 chicks for 4 months. With each can is a booklet of complete instructions for the care and feeding of chicks and mature birds. Mail the coupon today for a big 2½ pound can by prepaid parcel post.

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Among the Farmers

Committee Studies TB Work—News from Albany

THE New York State Farm Bureau Federation recently appointed a committee composed of H. E. Babcock, E. R. Zimmer, M. E. Buckley and L. A. Toan to make a thorough study of the tuberculosis eradication work that is being done in New York State, and to make recommendations as to what the State policy covering this work should be. J. Coryell is secretary of the committee. At its first meeting the following resolution was passed:

WHEREAS, The failure of the State of New York to provide for the prompt payment of indemnities on condemned cattle is requiring the expenditure by the State of a large amount of money for interest, and is causing financial embarrassment to cattle owners; therefore; be it

Resolved, That it is the sense of this committee that all appropriations should be made by the Legislature of the State of New York to cover indemities incurred to date; and further be it

Resolved, That it is our opinion that an adequate appropriation should be made to finance future work.

FARM NEWS FROM ALBANY

Bills have been introduced in the Legislature to require an examination for licensing horse-shoeing. The examination fee and license would cost $5. To be eligible for this examination, one would have to be an apprentice in the trade for three years.

* * *

Assemblyman Kahon has introduced a bill which would require every auto owner to have an automatic governor, approved by the State Tax Commission, on his car which would prevent a speed of more than 30 miles an hour.

* * *

The Lockwood House bills are causing much discussion. They are very sweeping and broad in their powers regarding labor unions and business in general. If passed, they would create a trade commission to regulate business, prohibiting stock and mutual companies from taking compensation, and provide for prevention of fraud in the distribution of securities. They also provide for licensing stock and bond dealers, limiting investments of fire insurance companies, and provide that these companies dispose of certain securities which they now hold. Cooperative leaders of the State are giving considerable attention to certain features of the Lockwood bills which would, in their opinion, if passed, restrict the work of farmers' organizations.

* * *

A bill before the Legislature would restore the printing of the Session Laws in county papers. A previous law providing for such printing was repealed in 1921.

* * *

Assemblyman C. P. Miller introduced a resolution to investigate the wages, hours and working conditions of women and children, committee to submit report to succeeding session. An investigation of this kind seemed necessary after the apparent division among the women themselves as to what they would recommend at this time for their own welfare.

* * *

Chairman McGinnies of the Assembly Ways and Means Committee introduced in the Legislature to-day a bill appropriating $150,000 for the use of the Conservation Commission in combating the gypsy moth. It was explained that the insect pest had worked much harm in New England, and that it was desirable to prevent it getting a foothold in New York.

LEAGUE CANCELLATIONS TOTAL 10,768

The Dairymen's League Co-Operative Association reports a total cancellation of 10,768 contracts. Of this number of producers who served notice of withdrawal on their Association, 5,000 were selling milk in Classes 1 and 2, and 4,000 in Classes 3 and 4. The balance were producers whose contracts with their association were inactive because they were no longer producing or lived in localities where it was impossible for the league to pool their milk.

The organization reports that of the 5,000 producers in Classes 1 and 2 who withdrew, there were a considerable number who had already violated their contracts and were selling to other dealers. Except in a few places the association's own plants were not effected much by the cancellations. There were very few withdrawals from the more important plants owned by the organization.

The cancellation was especially large in the so-called "cheese territory." The total cancellation in Lewis and Jefferson, where there are many cheese factories, were 1,096 and there was 957 withdrawals in St. Lawrence County.

A Doctor of the Old School

(*Continued from page* 239)

of night. I will wash and dress the baby, which he did with all tenderness, then cared for the mother, made her comfortable, and went his way.

And there was the poor Polish woman who came running begging him: "Queeck, queeck, my baby die!" When Dr. Brown got there he found the child in a bad way indeed, having fallen and cut himself about the head so badly he needed the care of a surgeon; so, hurrying the child with its father and mother into a car, Dr. Brown took them to the hospital. On arriving he called the Polish doctor, and they attended to the baby, but the child had lost so much blood they saw he was not going to come out from under the anesthetic. The Polish doctor said: "Well, it's no use; only transfusion will save him, and you can't get any blood." "I can't!" said Dr. Brown. "You see." And, going to the room where the father and mother sat, he explained quickly to them and said: "Unless you give some of your blood at once to your child, he will die."

Although she understood but little English, the Polish mother rose to her feet and with the mother love of all true mothers shining in her eyes, said: "I go, I give." What a text for a sermon! What a sermon in itself! She may have thought it was her life they wanted. She lay beside her boy and gave him of her life blood. After a short time color began to come back into the child's face; then his eyes opened and he said: "Mum, mum!" That was reward enough for Dr. Brown.

I know of more doctors like Dr. Brown, but fail to see younger doctors coming on to take their places, and so for what these old country doctors have done and are doing yet for us country folks, I write this and say with George Turner:

"If with pleasure you are viewing any
work a man is doing,
If you like or if you love him, tell
him now;
Don't withhold your approbation 'til
the parson makes oration
As he lies with snowy lilies o'er his
brow;
For, no matter how you shout it, he
won't really care about it;
He won't know how many teardrops
you have shed;
If you think some praise is due him,
now's the time to slip it to him,
For he cannot read his tombstone
when he's dead.

"More than fame and more than money
is the commend kind and sunny,
And the hearty, warm approval of a
friend;
For it gives to life a savor, and it
makes you stronger, braver,
And it gives you heart and spirit to
the end.
If he earns your praise, bestow it;
If you like him, let him know it;
Let the words of true encouragement
be said;
Do not wait 'till life is over and he's
underneath the clover,
For he cannot read his tombstone
when he's dead."

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on man or beast, you will find Corona Wool Fat soothes the pain almost instantly and heals very quickly, often without leaving a scar. Can't be beat for

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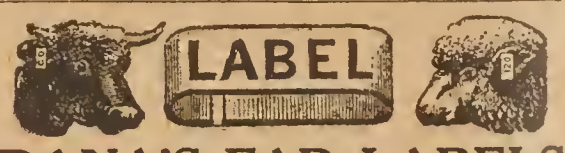

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Hick's Lice-Go, which is the name of this remarkable lice remedy, is dropped in the chicken's drinking water. Taken into the system of the bird, it comes out through the oil glands of the skin and every louse or mite leaves the body. It is guaranteed to help the hatchability of the eggs and cannot injure the flavor of the eggs or meat; is harmless to chicks and does not affect the plumage. A few days' treatment at the start and then a little added to the drinking water each month is all that is necessary.

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Many Farm Sales in New Jersey

W. H. BULLOCK

FARM sales have been the order of the day in the last few weeks throughout New Jersey, and the height of the season for spring disposal of farm property, live stock and equipment is at hand. Considerable interest has been shown in the sale of horses at these sales, and teams have been sold all the way from $135 to $375 per pair, the latter figure being high at the sales and only for sound animals well broken into the work. A number of cars of horses from Illinois and other parts of the Middle West have recently been received at several points in New Jersey, local dealers selling them to their regular customers.

At some of the public sales, good grade cows have sold at $90 to $95 apiece, a few high producing animals occasionally going as high as $175. Hay has been sold at the farm at $15 to $22 per ton, while good timothy offered through dealers at local points in the southern part of the State, has brought around $25.

Scarcity of Farm Labor

Farm labor is reported scarce through many sections of the State. At such points as Allentown and Hightstown, N. J., buses full of laboring men go daily into such towns as Trenton and New Brunswick, the same men previously being available for farm work. A large grower in the vicinity of Allentown said that 30 men daily commute to the city for work, whereas 25 of these same men previously were available for work on the farms in his vicinity.

Fruit Buds Reported Healthy

The consistent cold weather of February and March was favorable for the protection of peach buds generally throughout New Jersey, despite a temporary rise of temperature during the first few days of March. The cold weather and snow have maintained the trees in a dormant state and have prevented too rapid development of the buds. Although too early in the season to give a definite estimate on the condition of peach buds throughout the State, scattering reports now available indicate a healthy condition and the promise for a good bloom, all other conditions being equal between now and May. Orchardists also report that the cold weather has been effective in controlling some of the orchard pests. It has also made wild deer more bold in Atlantic, Ocean and Cumberland counties, bringing the animals nearer to the farm houses, with considerable damage reported to young trees.

The county agents of Southeastern New Jersey, in conjunction with the State Experiment Station and the New Jersey State Bureau of Markets, recently conferred for the purpose of urging more attention to the standardization of sweet potatoes. It was felt that the U. S. grades should be adopted and that the growers should acquaint consumers with the merits of such standardization so that sweet potatoes might be more generally consumed next year and at a price nearer to the cost of production. The growers are asking New Jersey consumers to order definitely according to grade. The grades selected are: N. J. U. S. Fancy No. 1, No. 2, and Jumbo. The No. 1, which is the general commercial pack, runs 1¾ to 3 inches in diameter with a length between 4 and 8 inches. However, the length may be less than 4 inches if the diameter is 2 inches or more. To qualify for the grade, the sweet potatoes must be sound and practically free from dirt, disease and other injury.

Notes from the Counties

Hunterdon Co.—At the recent meeting of the Flemington Fair Association, the fair dates for next summer were set as August 21 to 25. Officers for the coming year are: E. B. Allen, President; F. R. Williamson, Vice President; A. S. Case, Treasurer; Dr. C. S. Harris, Secretary, Horace P. Murphy, Race Secretary. The Flemington Fair is annually one of the best racing classics among the smaller associations. The general fair attractions are also splendid and plans are being made for an even better event this coming season.

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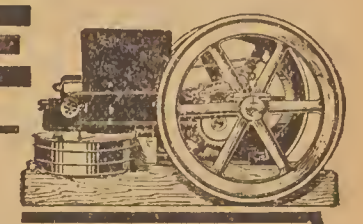

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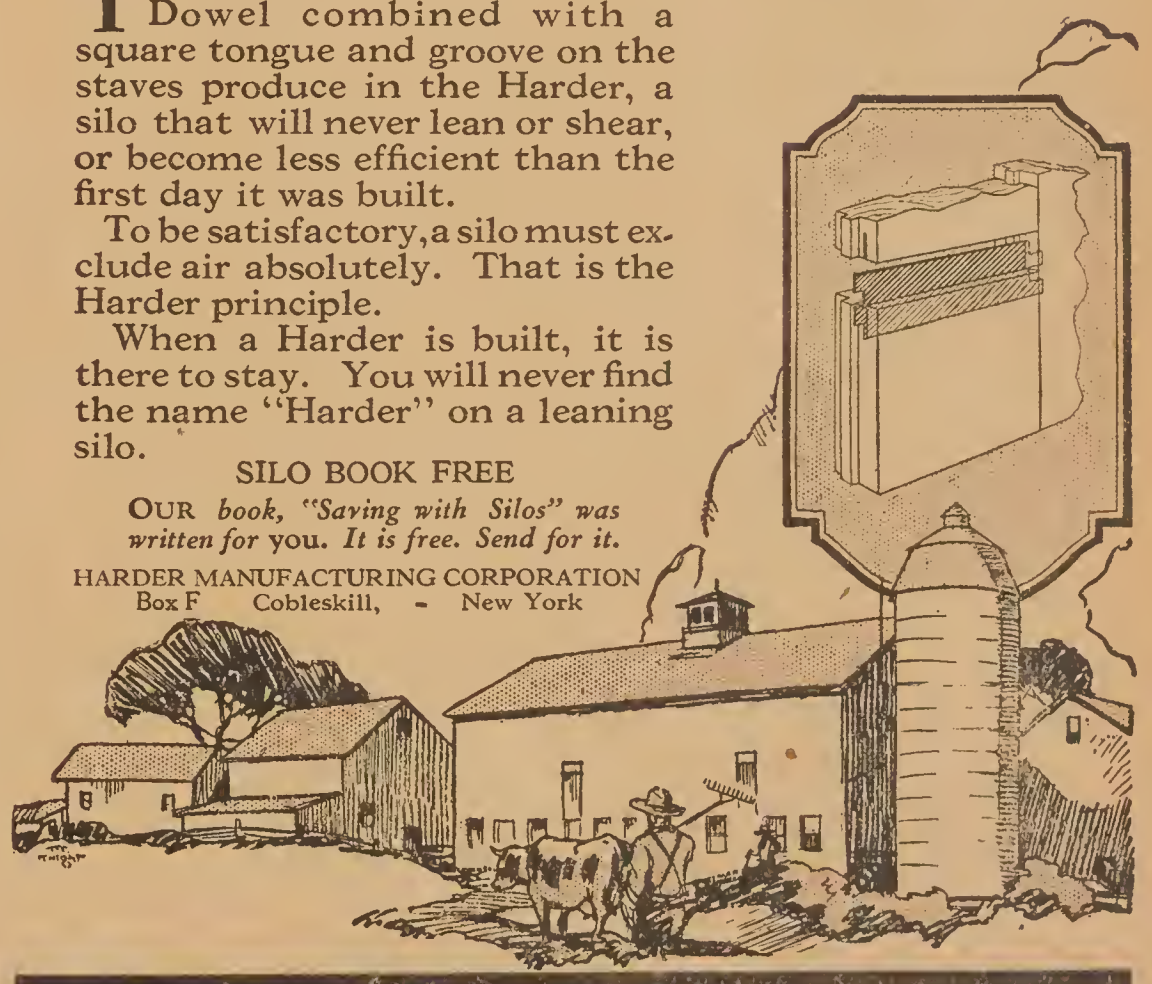

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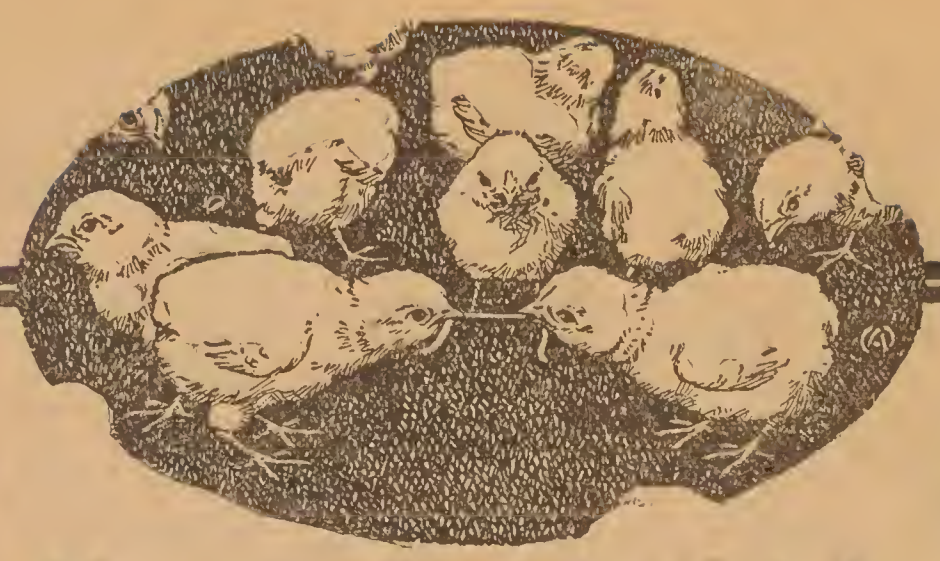

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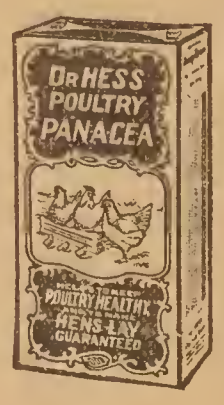

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Don't Hatch Too Early

Avoid Early Moulting Troubles

By R. D. WEIGLEY

Do not make the mistake of incubating your eggs too early. I have had chickens that were taken off the nest the last of February that moulted just as the old hens did, and many other persons have told me that they had the same thing happen to their pullets that were hatched very early.

This moulting of the pullets is especially undesirable and unprofitable. A pullet that moults is immature and will be permanently stunted. She is in a weak physical state, and is open to attacks of cold and other poultry ills. This was especially true last fall. I saw some flocks of moulting pullets that fell an easy prey to the chicken-pox which was prevalent throughout the entire State of Pennsylvania. Other pullets that were hatched in May did not moult and were healthy and started laying by Thanksgiving. Every chicken owner expects to realize profit on his investment. Few of us can afford to be in the business for pleasure only. Therefore, if we keep chickens for eggs, we must study and observe our flocks and be ready to profit from our observations.

Lay When Eggs are Scarce

Pullets that start to lay in November, when eggs are high and scarce, will pay. If they start to lay earlier, they may moult, and in all probability will not have their new feathers and be in shape until eggs are beginning to drop in price, which is during February. If chicks are hatched too late, they likewise will not start to lay until toward spring, when eggs are dropping.

For the latitude of Philadelphia, Leghorn chicks for laying need not be hatched until about the first of May. Heavier breeds, such as the Rhode Island Reds and Rocks, can be hatched about one month earlier and Brahmas still earlier. These chicks will start to lay in fall, and will keep on laying all winter when eggs are highest and they are not going to moult.

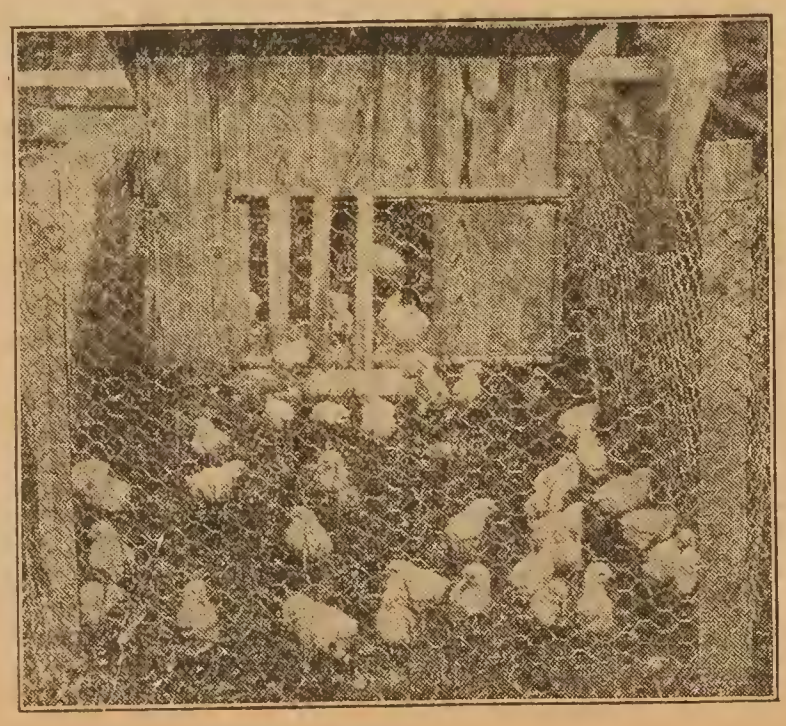
Of course, if the chicks are to be sold as spring chickens or broilers and roasters, then the earlier they can be hatched the better. Early spring chickens fetch double what those fetch that are not ready until five weeks later. The law of supply and demand governs the price of spring chickens, and very early in the year the supply is light and prices high.

THE ROOM FOR THE INCUBATOR

L. H. COBB

I am convinced that the atmosphere in the incubator room has much to do with our success with the incubator. The hatching machine is not complex, but it depends on the change of air induced by the difference between the temperature of the air inside and outside. The greater the difference the faster the circulation and the more fresh air passes through the machine. Also the drier the air of the room, the more it causes the eggs to evaporate and the greater need for some moisture in the machine to check it. Also a cold air that is dry enough to take moisture from eggs would absorb moisture from the eggs much faster when heated. If we keep the machine in a room that is quite cool, the air in it should be very moist, while if in a room where the air is only 25 or 30 degrees below the hatching temperature the moisture content in the air need not be so near the maximum. Many machines provide for giving more ventilation when keeping the machines in rooms well and evenly heated like furnace-heated living rooms.

One of the best means of securing a suitable atmosphere is to open up all doors and windows possible for a short time every day. This will change the air in the room entirely and will equalize the moisture content. Usually the outside air will be about right for the incubators as they are made to operate. If they are kept in caves or cellars good air must be assured, and it is best to have some heat in the room that will keep the temperature even and not so low as to require forcing the incubator.



TURKEY EGGS IN SMALL INCUBATOR

Is it advisable to set 100 turkey eggs in an incubator? What should be the temperature? Would it be better to set the turkey eggs under hens?—D. W. Blaisdell, New York.

Some farmers use incubators quite satisfactorily, and large incubators are employed on commercial plants where turkeys are raised on a large scale. On the farm, however, the general custom is to use turkey hens and chicken hens. Since the turkey eggs are larger than hens' eggs, the approximate turkey-egg capacity of the incubator is three-fourths that of the chicken-egg capacity. The incubation period of turkey eggs is 28 days, the first egg in the incubator usually being pipped on the 27th day, and in some cases all of the poults are not hatched until the 29th day.

The temperature for turkey eggs during incubation are approximately the same as for hens' eggs, and the machines should be run at the temperature recommended by the manufacturer of that make of machine. The hatch is brought off in the same way as when handling chicks. Unless the incubator is supplied with moisture pans or some other arrangement, the eggs must be moistened during incubation. They are aired and turned, as is the case with hens' eggs. The turkey eggs are tested for fertility and dead germs on the 10th and 20th days.

Although an incubator would be much the easier practice, with as many as 100 eggs hens could be used. A long row of nests could be constructed on the ground, separated by partitions. The hens of the general purpose breeds will not satisfactorily cover more than eight or ten eggs, while the mother turkey hen will cover 15 to 18, and in some cases a few more. The chicken hens are handled in the same way as when incubating their own eggs, while the mother turkey must be watched, as she is a persistent sitter and may remain so long on the nest without water and food that she may die.

RAISING POULTS IN BROODER

Will you kindly tell me how to raise turkeys hatched in an incubator? What kind of house should they be kept in? What food do they require and at what age should they be allowed to run at large?—Mrs. J. H. Girts, Chautauqua County, N. Y.

Rearing turkey poults is about the same as handling baby chicks when hatched and brooded artificially. I judge from your letter that you contemplate brooding artificially. Some folks experience considerable difficulty in getting young turkeys to eat as they seem to go about with their heads up in the air. It has often been found a good plan to put a baby chick or two with the

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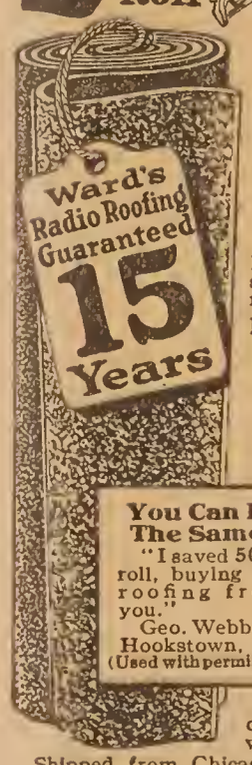

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WATSON E. COLEMAN, *Patent Lawyer,* 624 F Street, WASHINGTON, D. C.

poults as they serve, by example, to teach the turkeys where to find the food.

Where artificial methods are employed there is too often over-eagerness on the part of the turkey raiser to get the poults to eat too early. They should not have anything until they are two days old. At first turkeys are fed four times a day, being started on a moist mixture of equal parts of chick grain and chick mash, in which there has been mixed a considerable quantity of finely chopped green food. After a few weeks the feedings are reduced to three times a day. At about five weeks of age grain is fed morning and night with a feeding of moist mash, and finely cut green food. Buttermilk is considered by successful poultry raisers as a most essential part of the ration, supplying all of this material the birds will drink. Naturally a good range where the birds will be able to catch grasshoppers and other insects as well as procure a supply of green food is a great asset. However, care must be taken that they do not range far and become lost.

The general management of poults in the brooder is the same as that for baby chicks. A hover large enough for fifty chicks will accommodate twenty-five poults. In some cases hovers are not quite high enough for the young turkeys, with the result that they are inclined to develop leg weakness due to the fact that their backs are too close to the source of heat. The common coal stove brooders with hovers which may be raised are adapted to raising turkey poults artificially to very good advantage. The temperature at first should be at least 90 degrees. It is gradually reduced so that in three weeks' time the temperature is down to 70 degrees. As a rule, poults 6 or 8 weeks old need no artificial heat.

HATCH GOOSE EGGS IN INCUBATOR

I am a subscriber to your valuable paper. I wish to know where I can get some geese eggs hatched this spring. I lost 97 eggs last spring by having to hold them too long before having a setting hen or goose available to hatch them. Can they be hatched in an incubator?—T. W., New York.

Goose eggs can be successfully hatched in an incubator in substantially the same way as hens' eggs. The period of incubation is from 28 to 32 days, with an average of close to 30 days, whereas the ordinary hen's egg requires an even three weeks. This means a little more skill in the handling of the incubator, so that the temperature conditions are maintained for the full period of four weeks. The temperatures are gradually increased each week, so that the hatch is brought off at 102 to 103 degrees. Attention must be given also to the supplying of moisture. This is particularly important, as the period of incubation is longer than with hens' eggs.

If you do not have an incubator, it would hardly pay you to buy one for your goose eggs alone. Why not go to one of your neighbors who has an incubator and make a business arrangement for the incubating of your goose eggs on a custom-hatching basis? The fair charge in this case would be for you to pay him 5c for each egg put into his incubator and 5c additional for each gosling which hatches and lives for a period of 24 hours. In return for this charge, the man who runs the incubator is to give his best attention. He is paid for his trouble and the cost of operating the machine and the 5c for each gosling which he hatches successfully is an additional bonus to induce him to give his best efforts and attention to the operation of the machine.

If you have no immediate neighbor, a small advertisement in the local weekly newspaper should bring you in touch with someone within reasonable distance of your home.

Caring For the Winter Layers.—As the birds have been accustomed to open air conditions, it is necessary that proper ventilation be given. Care should be taken to keep the front of the house open. Green feed should be in no way restricted. It is of great importance at any time of the year, but during the winter period it is absolutely necessary.

Thousands of De Laval Separator Users Have Received 20 to 30 Years of Efficient Service.

As a result of the Oldest De Laval Separator contest in which it was announced $25 would be given to the owner of the oldest De Laval in each state, thousands of letters have been received, which prove beyond all question of doubt that 20 to 30 years of satisfactory service from a De Laval Separator is not unusual, and with reasonable care, to be expected.

$25 for the Oldest De Laval

This contest will be open until April 7th and other users of Old De Lavals who have not entered the contest, still have time to do so. Simply write us, giving the date of purchase, length of service, serial number, and a statement concerning its service. Even though your De Laval may not be as old as some mentioned here, enter it anyway, as it must be kept in mind that this contest covers every state; and in some sections separators have not been used so long as in others. Winners will be announced May 1st.

Following are a few of the many letters from old De Laval users, which are typical:

30 Years

"Our De Laval Separator was purchased July 12th, 1893. It has taken care of all the milk produced on this farm from 1893 until November, 1917, and we were milking over 30 cows at times. Since November, 1917, I have shipped the whole milk. The last time I tested the skim-milk it showed 2/100 of 1% fat."—Henry Petersen.

29 Years

"I have a De Laval Separator bought in May or June, 1894, which has been run twice each day ever since, but one day. It has many a day separated 2,000 lbs. of milk and is still in first-class condition."—Fred G. Palmer.

20 Years

"We have a De Laval Separator that we bought in the fall of 1903. It has been used twice a day nearly every day, separating on an average of 83,579 lbs. of milk per year, and is still in good repair and doing its work well. The last time that the skim-milk was tested by the testing association it was skimming to 1/100 of 1% fat. If this separator *ever* wears out we shall want another De Laval."—A. B. and J. M. Bicknell.

22 Years

"I purchased my De Laval on December 21, 1901, and it is still in very good working condition. My neighbor has worn out two other makes already and has the third. Mine still skims cleaner than his and I hope to use it about ten years yet. It is not to be worn out."—George P. Leibold.

25 Years

"My De Laval Separator was bought in the spring of 1898. We have used no other. This summer we had our skim-milk tested at the creamery and it tested 2/100 of 1%. It will be good for years yet."—Mrs. Tena Larson.

24 Years

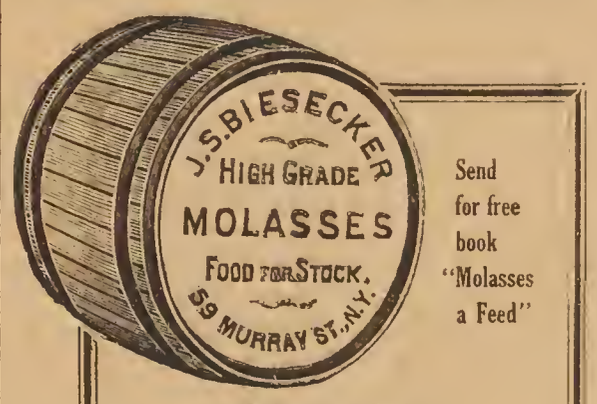
"My De Laval Separator was purchased in 1899 and has been in service every year. This machine has separated about 18,000 gallons of milk annually. It has given me excellent service and skims cold milk perfectly. My sister purchased a new De Laval last spring and has saved nearly enough to buy a good milch cow."—Emil S. Shubert.

Four to Five Times' More Use

Evidence such as this from thousands of users proves that a De Laval will last from four to five times as long as the average separator, and *do better work all the time.* It proves conclusively that the De Laval is the best and cheapest separator. The De Laval you buy today is the best cream separator ever built. With reasonable care it will last you a lifetime, and will pay for itself within a year. Sold on easy terms. See your De Laval agent or write us for full information.

The De Laval Separator Co.

NEW YORK 165 Broadway — CHICAGO 29 E. Madison St. — SAN FRANCISCO 61 Beale St.



Send for free book "Molasses a Feed"

More Milk

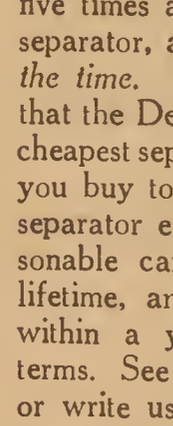
Molasses adds materially to the palatability of the ration fed to dairy cows. And that means the cows enjoy their food more—get more nourishment out of it—and that results naturally in more milk.

And for horses, hogs and sheep molasses is just as palatable, just as valuable. The price of good molasses is *very low* now.

J. S. Biesecker
Established 1889
Creamery, Dairy and Barn Equipment
59 Murray Street, New York

GLOBE Silo

cheapest per ton capacity



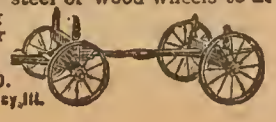
MORE silage can be stored in a GLOBE Silo with the patented GLOBE extension roof, per diameter and height, than any other similar size silo. Adjustable door-frames and patent locking doors that prevent spoilage, door fasteners that become rungs of the ladder, adjustable hoops that correct swelling or shrinking, are exclusive features only found in GLOBE Silo.

Only carefully inspected Canadian spruce and Oregon fir are used. Metal parts are made of finest steel and malleable iron. Rugged, perfect service is assured in a GLOBE Silo.

Prices: $3.00 per ton capacity up, according to size. Write TO-DAY for catalog and agency proposition.

GLOBE SILO CO., Box 105, Unadilla, N. Y.

Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.



Electric Wheel Co.
2 Elm St., Quincy, Ill.

SWEET CLOVER **WHITE BLOSSOM**

Unhulled. Have big stock highest quality scarified hulled seed at Special Money-Saving Prices. We specialize on Grass and Field Seeds and quote them at Special Bargain Prices. Write today for FREE SAMPLES, special prices and big seed guide. ALL FREE.

$2.85 Bu.

AMERICAN FIELD SEED CO.
Dept. 915 Chicago, Ill.

UNADILLA SILOS

Patented Door Front Ladder

No Other Silo Like It

SILOS may look alike from the rear, but a Unadilla Silo has its unusual character on its front. To judge a man, you "look him in the face". Judge silos the same way.

Silos are made to use, twice a day, for 6 or 7 months. Climbing in and getting out is a chore—but not with a Unadilla. An ever-ready, safety ladder formed by the door-front ladder makes it easy and safe. Here, too, you tighten or loosen hoops when necessary and preserve the life of the silo.

In a Unadilla you *push* silage out at the door level, because these doors can't stick or freeze tight. Silage is removed on a level and not pitched overhead. You don't *jump* into a Unadilla, you *step* into it.

There is no other silo like Unadilla in convenience, safety and labor saving that its front affords.

Send for the big, new catalog illustrating all Unadilla features.

UNADILLA SILO CO., Box B, Unadilla, N. Y.

CRAINE TRIPLE WALL SILOS

For More Protection

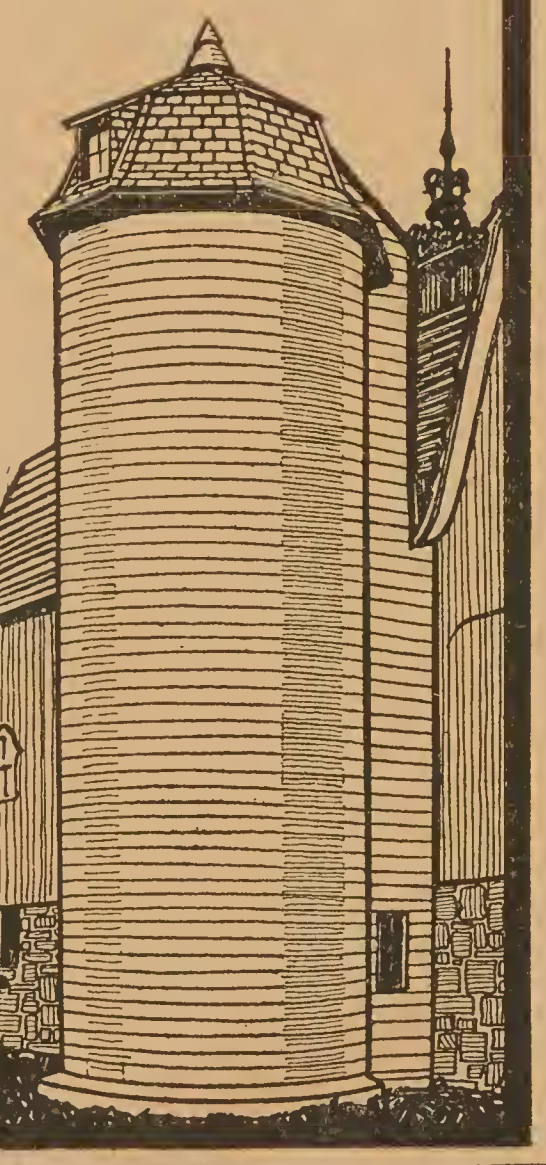
Craine 3-Wall Silos offer more protection to your silage; greater protection for your silo investment.

With their giant strength is combined a handsome, smooth, upright exterior that is unmarred by bothersome hoops and ugly lugs.

Three walls reinforce every square inch of surface against tremendous strain of tons of weight inside and violent weather from without.

Men who know silos from experience with others or through investigation choose Craine Triple-Wall Silos.

You can rebuild an old stave, iron-hooped silo into a permanent, beautiful Craine 3-Wall structure at about half the cost of a new one.



Write for Illustrated Catalog. Early orders earn extra discount.

CRAINE SILO CO., Inc.
Box 120, Norwich, N. Y.

IF YOU HAVE ANYTHING TO BUY OR SELL, try the classified columns of American Agriculturist. A single advertisement reaches over 120,000 farm folks.

He Always Told The Truth

The Deacon Sold the Dominie a Cow, But—!

By C. F. ROGERS

THE Rev. Winfield Babington Kelsey had just located his family in a new parish. At the rear of the manse was a small barn and a beautiful little stretch of pasture land. He was happy indeed to be out in the fresh country air again after having spent ten years in the city. "If I had a cow to crop some of the grass that is going to waste in that pasture it would give me a little exercise in caring for her, and would afford my family all the milk, butter and cottage cheese that they could consume," thought the minister.

That very afternoon he started out to purchase a milk producer. Meeting a farmer on the road, he asked if he knew where he could buy a good cow. "Be you the new minister?" queried the farmer. "I am," answered Rev. Mr. Kelsey. "Wal, then, that man who lives in yonder yellow house always has cows for sale or trade." Thanking the man, the prospective buyer went on his way. "Come, Tips," commanded the farmer as his big black was a little slow in getting under motion, "ef Deacon Bartley trims his own preacher es bad es he skinned me on our last trade, I shouldn't wonder but what folks will be lookin' for another preacher before fall," chuckled the farmer.

Deacon Bartley's big, powerful hands were extracting two large streams of milk from one of his best producers as a small, neat-looking man walked down the alley behind the cattle. "Can you tell me who has a good cow for sale?" he asked of the tall, thin man on the milk stool. "Amos Bartley has got good cows. He don't keep any other kind, and anything or everything he has in the barn is for sale or trade." "Who is Mr. Bartley," asked the little man. "I am Amos Bartley," replied the milker. "Now you just go ahead, pick out any cow that suits you, ask any questions you care to about her, and I will promise to answer them truthfully."

In fairness to the Deacon, let it be said that he supported his family well, helped his neighbors when they were in trouble, intended to go to church regularly, prayed with fervent devotion at the prayer meetings and had a splendid Christian character. But, like all human beings, Deacon Bartley had a weakness, a time when the lower, worldly man conquered the higher, spiritual man, and that one time was when a cow deal was on. The man knew his weakness, but always tried to soothe his conscience by repeating to himself the fact that he always told the truth. However, he never could bring himself to say that he told all the truth.

When Deacon Bartley was not cow-trading, his countenance was kind, meek, and pious, but when the winds of barter were in the air his gray-blue eyes assumed a keen, steel-like glance and his mouth curled in a half leer and a half smile which was known throughout the country-side as Deacon Bartley's smirk.

"Is this cow a good one?" inquired the prospective buyer as he pointed to a big, square, typey, white individual. A lump began to rise in the milker's throat. Maybe this man wasn't as big a fool as he tries to make out. He had spotted the best cow in the herd the very first thing. That's isn't a cow that you would want; I couldn't conscientiously sell you that cow," answered the owner. When the farmer finished milking the cow, he appeared to walk aimlessly down the alley mentioning the good points of one cow after another, while all the time he was moving as fast as possible toward the cow which he wished most to sell. As he reached the third animal from the end of the row, he stopped and remarked, "There is a cow that I would sell easy."

The eye of the would-be purchaser rested on the little black cow with evident satisfaction. Because of her sleek, slippery condition, she did not appear like a thirteen-year-old, and her large, meaty udder evidenced a heavy producer, in the estimation of the minister. "How much does she give?" asked the preacher. "Right to-day she gives more milk than any cow in this end of the row," responded the owner. "Has she any teeth?" was the next question. "She's got more teeth than I have," was the prompt rejoinder. "Does she kick when she is milked?" asked the minister. "No, she does not kick when she is milked," answered the farmer. "Would she make a good family cow?" was the last question. "With that good cow in his possession a man would be sure to have peace in the home. If you want that cow for (Deacon Bartley now looked indescribably wise) fifty dollars she is yours." The minister pulled out five ten-spots, borrowed a rope and led his prize home.

"You've been cow tradin'; that self-satisfied smirk gives you dead away," demanded Mrs. Bartley that evening at the supper table. "Yes, I sold a cow that I'd been trying to dispose of for the last seven years, and, by the way, Carlotta, we've got to get out to church Sunday; Brother Bowers tells me that the new Elder is the Godliest man who ever stood in our pulpit. To think of them getting such a preacher as that without a word of counsel from me is unbelievable."

Two evenings after the deal, the minister, rope in hand, entered the stable. In an angry voice he shouted: "You said that cow was a big milker, had a good mouth, was a non-kicker, and would make an ideal "family cow!" Deacon Bartley's face was so meek, so kind, that the speaker felt almost sorry for the man as the latter began to defend himself in a mild, passionless voice. "I didn't say the cow was a big milker; I said that she gave more milk yesterday than any cow in this end of the row. All the other cows in this end of the row are dry."

"I said that she had more teeth than I've got, but that didn't mean that she

"All I told you," said the Deacon, "was that her mouth was just as good as mine, and that was the truth, 'cause I haven't got a tooth in my head"

had a good mouth, for I haven't a tooth in my head. You asked whether she kicked when she was milked, and she doesn't, for she's all through kicking then. It's when she is being milked that she makes things lively. I didn't say that she was an ideal cow, but I did think she ought to keep peace because, where there is nothing worth quarreling over, there is usually peace."

"That's all right," said the little man, "we will have to make the best of it. I just wish to say, Deacon Bartley, that I am the new minister, and that next Sunday being communion, I would like very much to have all the deacons present."

The 67th Congress and the Farmer

(*Continued from page* 241)

provided that "'butter' shall be understood to mean the food product usually known as butter, and which is made exclusively from milk or cream, or both, with or without common salt, and with or without additional coloring matter, and containing not less than 80 per cent by weight of milk fat, all tolerances having been allowed for."

8. The Anti-filled Milk Act. One of the most dramatic struggles was that which resulted in the passage of a federal Anti-filled Milk Act. This act became a law on March 3, but no prosecutions for penalties are to be enforced for any violation until 30 days after it became a law. The act forbids the manufacture and sale within the District of Columbia and the territories and possessions of the United States, and the shipment in interstate or foreign commerce of milk compounds containing as an ingredient any fat other than milk fat.

Reforming Farm Finance

Farmers resented very much the restriction of farm credit during the closing year of the Wilson and the first year of the Harding administrations. They thought that something was fundamentally wrong with the policies of the Federal Reserve System, and demanded that a farmer representative be placed upon the Board. A bill was introduced to this effect and became a law. The President then appointed Milo D. Campbell of Coldwater, Mich., to this position. Mr. Campbell was the President of the National Milk Producers' Federation until he accepted the appointment.

Farmers also asked for a complete reorganization of the whole scheme of farm finance. Many bills were introduced, and Congress finally passed a composite credit act. This act does not, however, make any drastic changes in the existing credit machinery of the country. Its purpose was rather to loosen up at the top the flow of credit by providing a wider investment market for agricultural paper. The act in brief does this:

1. It makes more readily available the commercial credit facilities of the country by lengthening the rediscount privileges on agricultural paper to say from six months to nine months.

2. It authorizes the formation of a new series of agricultural banking corporations, formed with private capital whose purpose is to lend money mainly to growers and fatteners of live stock.

3. It extends the life of the War Finance Corporation to February 29, 1924.

4. It sets up twelve regional governmental banks attached to the offices of the twelve Federal Farm Land Banks. These banks, known as intermediate credit banks, are authorized to purchase agricultural paper running from six months to three years in maturity and to make direct loans to agricultural cooperative marketing associations on the security of warehouse receipts or bills of lading. The cooperative association may borrow money for either processing or the storing of commodities.

Each of these banks is to start with $5,000,000 capital.

Bills that Failed

Among the bills that farmers wanted that failed to pass were:

Measures for the disposal of the Government property at Muscle Shoals, Ala.; the Truth in Fabric Bill; the Standard Containers Act; amendments to the Transportation Act of 1921; a bill to purchase nitrate.

Helps Cows Make More Milk

Sugared Schumacher Feed helps cows to make more milk by providing them with a variety of wholesome body building grains, ample sustenance for bodily maintenance, so that they do not have to draw on any of the protein concentrates for their physical needs, but can convert ALL of the protein, part of the ration you feed them, into milk.

It's sweet — cows like it — they eat it with relish and it keeps their appetite keen — they don't get "off their feed." It keeps them healthy — full of vim, vigor and vitality — that's why

SUGARED SCHUMACHER FEED

Is Noted for Its LONG TIME Milk Production

The World's Greatest Carbohydrate Ration—it is composed of Wheat, Oats, Corn and Barley, combined with Oil Meal and Salt. This mixture is properly balanced, kiln dried and made sweet with the addition of a liberal amount of dried Cane Molasses. Feed it with any protein concentrate you prefer and notice how quickly the general health condition of your herd will improve and milk yields increase. Sugared Schumacher will prove its right to the name of an udder feed—the milk pail tells the tale. Your dealer can supply you.

The Quaker Oats Company 1651 Railway Exchange Bldg. *Address* Chicago, U.S.A.

CATTLE BREEDERS

DISPERSAL SALE

Pure Bred and High Grade
GUERNSEY CATTLE
AND
Registered Berkshire Brood Sows
March 20th at Noon

Head sire Albamont Excelsior, rich in May Rose, a direct descendant of Gov. Chene; grandson of Spotswood Daisy Pearl. Good enough to sire a large herd. Also a son of the above blended nicely with the Valentines.

Two granddaughters of Valentine III. Many other good Guernseys. 12 Registered Berkshire Brood Sows, Superior, Epochal, Premier and Matchless breeding, some with their litters.

Sale—March 20th at Noon. Taxis meet all trains and luncheon served on the grounds.

FAIRLAWN FARMS
New Hamburg, Dutchess Co., New York

I have 100 fresh cows

and springers due to freshen in the next two months. They are the best obtainable in N. Y. State, black and white and red and white and in the best of condition, and I will be pleased to show them to the critical buyer that cannot find what he wants elsewhere. If you want the best, I want your business. Don't write for prices, but wire when you will come.

F. L. PALMER, Moravia, N. Y.

Holstein Cows For Sale

Two carloads of fancy, large grade Holsteins that are just fresh or due to freshen soon.

60 cows that are bred to freshen during February, March and April. All young, large and heavy producers.

A. F. SAUNDERS
Telephone 1476 CORTLAND, N. Y.

CATTLE BREEDERS

HOLSTEINS

Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. **J. A. LEACH, CORTLAND, N. Y.**

HIGH-GRADE HOLSTEIN COWS
fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.
Browncroft Farm McGRAW New York

SWINE BREEDERS

LARGE YORKSHIRE BOARS
FOR SALE
Well-grown for their age and vigorous. Ready for immediate service. Priced at farmers' prices.
HEART'S DELIGHT FARM, Chazy, N. Y.

O. I. C's. VIEWMONT FARM, MAINVILLE, PA.
Now ready, choice fall pigs from School Master Callaway Edd and Wildwood blood lines. Pairs not related. Good enough to ship anywhere C. O. D.

REG. DUROCS — From prize-winning herd. Premiums from 10 fairs fall 1922. Orion Cherry King and Top Col. strain.
J. W. COX & SON, R. 5, NEW CASTLE, PA.

CHESTER WHITES and O. I. C. Big Type Grand Champion bloodlines. Pigs, $10 each, prepaid. GEO. F. GRIFFIE, Newville, Pa.

LARGE BERKSHIRES AT HIGHWOOD
Grand champion breeding. Largest herd in America. Free booklet.
HARPENDING Box 10 DUNDEE, N.Y.

REGISTERED O. I. C. AND CHESTER WHITE PIGS. E. P. ROGERS, WAYVILLE, N. Y.

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"I saw your ad in the *American Agriculturist*" when ordering from our advertisers, you will benefit by our guarantee to refund the price of goods purchased by any subscriber from any advertiser who fails to make good if the article purchased is found not to be as advertised.

No trouble, that. And you insure yourself from trouble.

Live Stock Offerings

either for sale or purchase. Can best be reached through a live medium. Classified advertisements in the AMERICAN AGRICULTURIST bring substantial results from both near and far.

New Way to Rid Poultry of Lice

Amazing Discovery Keeps Hens and Chicks Free From All Vermin

Few Drops in Drinking Water Does It—No Dusting, Spraying Or Greasing

Sickly, lice-infested Hens cannot lay or have good hatches. Vermin sap the very life and strength of hens and baby chicks.

Lice, Mites, Ticks and other pests positively will not stay on fowls where Imperial Lice and Mite Remedy is used occasionally in drinking water. Guaranteed not to affect eggs or flesh of fowls in any way. Also a splendid tonic and blood purifier. Costs but a trifle, on money-back guarantee of satisfaction.

White Diarrhea Remedy Free

At last a sure treatment for this dread disease. No muss. No fuss. Comes in condensed tablet form to be dropped occasionally in chicks' drinking water. Raise every chick hatched. Economical to use. Be prepared. These remedies should always be on hand.

SEND NO MONEY. Just your name and address to Imperial Laboratories, Dept. 3580, Kansas City, Mo., for one regular, full size $1.00 bottle of Imperial Lice and Mite Remedy (double strength), and they will include free of cost, a regular $1.00 box of Imperial White Diarrhea Remedy. Pay postman only $1.00 and few cents postage on arrival. Your $1.00 refunded any time in 30 days if not satisfied.

THIS IS *YOUR* MARKET PLACE

Classified Advertising Rates

Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

REAL RED REDS, Single Comb, pure bred, deep, rich, red, vigorous Cockerels and Pullets; three, four, five dollars; satisfied customers. MEADOWBROOK FARM, Route 3, Box 210, Lancaster, Pa.

WANTED—Several hundred dozen strictly fresh eggs and also several tubs of best creamery butter per week directly from farmer. Quote lowest price. R. ERICKSON, Box 115, Ridgefield, N. J.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

PURE-WHITE BOCKY WHITE WYANDOTTE, quality egg-bred S. C. Ancona, correct colored Buff Leghorn Cockerels. Courteous service. OWNLAND FARMS, Hammond, N. Y.

LONG'S STURDY CHICKS—10c. up. Reds, Rocks, White Leghorns and Mixed Chicks. Prepaid live arrival guaranteed. Circular free. TURKEY RIDGE HATCHERY, Millerstown, Pa.

BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

ROSE COMB RHODE ISLAND RED COCKERELS, bred for color and egg production, shipped on approval, write, H. M. PIERCE, R. 3. Franklinville, N. Y.

PURE BRED S. C. BUFF LEGHORN COCKERELS from prize winning, heavy laying stock, prices reasonable. SILAS HUNT, Penn Yan, N. Y.

SUPERIOR COCKERELS, BARRONS, S. C. White Leghorn, 300 egg strain, $3 each. Rush order. Supply limited. VIRGINIA WALTER, Fisher, Pa.

BABY CHICKS—Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

TORMOHLEN FAMOUS EVERLAY Leghorn Cockerels; eggs for hatching; day-old chicks. SUNNYSIDE FARM, Emporium, Pa.

MONEY SAVED — Free feed. Low prices. Baby chicks. Eggs, brooders. Supplies. EMPIRE HATCHERY, Seward, N. Y.

SINGLE COMB BLACK MINORCAS, Great layers, Cockerels and Hens eggs, 15, $2; 100, $8. THOMAS EBERSOL, Carrollton, O.

GOLDEN AND SILVER WYANDOTTES-EGGS, $2 per 15, from extra selected stock. J. L. HOAK, Spencerville, Ohio.

PURE VERMONT MAPLE PRODUCTS of highest quality. Circular and price list free. HILLSDALE FARM, Glover, Vt.

PEARL GUINEAS. White Wyandotte, Mammoth Pekin Duck Eggs. LAURA DECKER, Stanfordville, N. Y.

HATCHING EGGS, from pure bred, S. C. White Leghorns, $1.50 per 15. FRED STRATTON, R. D. 2, Bath, N. Y.

FOR SALE—Mammoth Toulouse Goose eggs, 40 cents each, postpaid. CHAS. D. PAXTON, Rt. No. 5. Zanesville, Ohio.

FOR QUALITY S. C. ANCONA eggs or chicks, write, C. V. McMAHON, Marathon, N. Y.—Folder Free.

WHITE AND COLORED Muscovy Ducks. Drakes $4. Trios $10. M. V. CALDWELL, Lisbon, Ohio.

WHITE LEGHORN QUALITY CHICKS. Superior layers. Write NELSON'S, Grove City, Pa.

CHOICE MAMMOTH PEKIN DUCKS—$3 each; Drakes, $3.50. MRS. A. MORITZ, Rahway, N. J.

SILVER CAMPINES, wonder bird. Eggs, chicks. MAPLE LAWN FARMS, Cortland, N. Y.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

ROSE COMB BROWN LEGHORN EGGS, Reasonable. MAPLEWOOD, Navarre, Ohio.

BUFF ROCK COCKERELS — EDGEWOOD FARM, Ballston Lake, N. Y.

TURKEYS

TURKEYS—100 pure bred Mammoth Bronze, Bourbon Red, Narragansett, White Holland Toms, large husky fellows, reasonable prices. Booking orders for eggs. WALTER BROS., Powhatan Point, Ohio.

TURKEYS—Hens and Toms—with size and quality. Pairs and trios no akin. Mammoth Bronze, Bourbon Red, Narragansett, White Holland. Write, WALTER BROS., Powhatan Point, Ohio.

TURKEYS—3 large Bronze toms, $15 each; two Reds, $33; Cornish and game Cockles, and eggs. WALTER CLARK, Freeport, O.

CATTLE

FOUNDATION TRIO OF REGISTERED GUERNSEYS. Two six year old granddaughters of Itchen Daisys May King of Langwater and a 62½ per cent two-year old Ultra May King bull. Accredited Herd. Price, $525. A rare opportunity. ALFADALE FARM, Athens, N. Y.

HOLSTEINS, entire herd including sire. Records up to 662.5 lbs. milk; 27.74 lbs. butter. Head fully accredited. Never had a reactor. All my own breeding. C. D. HESS, Liverpool, N. Y.

FOR SALE—Two young Holstein cows. Coming fresh. Reasonable price if sold immediately. BRUCE LEWIS, Box 31. New Milford, Pa.

REGISTERED JERSEYS. Bargain. Two good young bulls $50 each. Fine 17-months old heifer, $125. HENRY INGALLS, Greenville, N. Y.

WELL-BRED JERSEY BULL CALF. Registered, transferred and crated for first check for $50. CLAUDE REYNOLDS, Waterloo, N. Y.

FOR SALE—8 pure bred Holstein Heifers. Five weeks to four months. Tuberculin tested, $60 each. A. L. MOATS, Jamestown, Pa.

FOR SALE—Registered Guernsey bull. Two years old. May Rose strain. B. F. HADSALL, Tunkhannock, Pa.

FOR SALE—Registered Hereford cattle, both sexes. CASE COTTRELL, Hoosick Falls, N. Y.

DOGS AND PET STOCK

THOROUGHBRED FOX HOUNDS and English Beagles, any age. Alsa Columblan Wyandotte eggs from first prize winners, $2 per 15 or $8 per 100. D. C. KALTREIDER, Reo Lion, Pa.

FOX, COON AND RABBIT HOUND PUPS. Get your pup now and be ready for another Fall. LAKE SHORE KENNELS, Himrod, N. Y.

PEDIGREED COLLIE PUPS, Sables, whites, grown collies, bred sows, leghorn hens. EL BRITON FARM, R. 1. Hudson, N. Y.

COLLIES, beautiful females, sable and tricolor. JOHN D. SMITH, Walton, N. Y.

FLEMISH GIANT RABBITS, Exclusively. T. A. WILSON, Marion, N. Y.

SWINE

FOR SALE—Registered yearling Duroc Boar. Sired by R. W. Sissors, Dane-King's lady of P. C. 3rd. Weight about 200 lbs. First check for $35 takes him with papers. CLERMONT J. JACKSON, R. 3. Marcellus, N. Y.

REGISTERED POLAND-CHINAS, BERKSHIRES, Chester Whites, all ages, mated, not akin. Bred sows, service boars; collies, beagles. P. HAMILTON, Cochranville, Pa.

FOR SALE—Registered Chester White Swine. All ages, write your wants. ORCHARD SLOPE FARM, R. D. 4, New Castle, Pa.

FEMALE HELP WANTED

WANTED—Good neat woman to keep house, must be good cook, two girls 6 and 8 years and myself in family. Good wages, and a splendid home for the right party. Inquire at once. W. E. DAVIS, Java Center, N. Y.

WANTED—American girl, age 22 to 35, to keep house for mother and son in country, house electrically equipped. Box 127, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

RAW FURS AND TRAPPERY

LET US TAN YOUR HIDE—Cow and Horse hides for fur coats and robes. Cow and Steer hides into Harness and Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

MUSKRAT FURS WANTED FOR COATS. High prices paid. EVERETTE SHERMAN, Whitman, Mass.

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

BEES

HONEY—Guaranteed finest quality, Clover, 5 lbs., $1.10; 10 lbs., $2. Buckwheat, 5 lbs., $1; 10 lbs., $1.75; prepaid. M. BALLARD, North Branch, N. Y.

SHEEP

FOR SALE—One hundred Delaine ewes; two to four years old; bred to lamb first of May. Also carload of grade Shropshire ewes. CHAS. W. BIRGE, Hector, Schuyler Co., N. Y.

INCUBATORS

SLOW, soft heat incubator and brooder for sale or would exchange for hens or pullets. GLENN HARDY, Winthrop, N. Y.

POSITION WANTED

POSITION AS HOUSEKEEPER by middle aged, refined woman. No family; thorough housekeeper; take full charge; best references. Box 102, AMERICAN AGRICULTURIST, New York City.

POSITION as housekeeper by middle aged, refined woman. No family. Thorough housekeeper, take full charge. Best references. Box 102, AMERICAN AGRICULTURIST, 461 Fourth Ave., N. Y. C.

WANTED position as superintendent of large farm by college graduate, experienced in crops, pure bred stock, fruit and handling men. Only good position considered. A. W. BENNER, Buskirk, N. Y.

YOUNG MAN 22 wishes position on small farm for 3 months, beginning April 1, will work for small wages and board. A. CALLESON, 10456 Lefferts Avenue, Richmond Hill, N. Y.

WANTED—Position as governess in West Virginia, Fayette County. State salary first letter. Christian girl. AULTIE FOX, Gatewood, W. Va.

BOY: Wants position on general farm. Experienced. Age 15½. Agricultural High School student. JACK LIND, 465 East 172nd St., New York City.

MALE HELP WANTED

WANTED—Experienced poultryman on private estate in Dutchess County, N. Y. Married man desired—house provided. Apply, "G. Y." P. O. Box 822, City Hall Station, New York City.

WANTED—Young man on fruit, general farm, Christian, no smoking, pleasant disposition, good home and wages. DEANE LIGHTFOOTE, Stanley, N. Y.

WANTED—An elderly man or boy around 16, to help on farm, good home. FLOYD S. PULTZ, No. 2. R. F. D. Ghent, Col. Co., N. Y.

WANTED—Single man for Dairy Farm, good pay and steady work. VICTOR LIEB, Box 79. W. Danby, N. Y.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

SEEDS AND NURSERY STOCKS

BERRY, VEGETABLE, AND FLOWER PLANTS — Strawberry plants, earliest, latest, largest, most productive and everbearing varieties; raspberry, blackberry, dewberry, loganberry, gooseberry, currant, grape plants; asparagus, rhubarb, horseradish, hop, sage, mint roots; cabbage, cauliflower, celery, tomato, sweet potato, beet, onion, lettuce, egg plant, pepper, parsley plants; hollyhock, gallardia, delphinium, canterbury bells, foxglove, poppy, sweet william, phlox and other perennial flower plants; aster, pansy, salvia, snapdragon, verbena, zinnia, strawflower, begonia, geranium, and other annual flower plants; dahlia, canna, gladiolus, peony, iris bulbs; roses, shrubs. Catalogue free. HARRY D. SQUIRES, Hampton Bays, N. Y.

FOR SALE—Muskmelon Seed, Benders' Suprise; selected from first-class Melons, by grower 30 years' experience, market gardener, not a sced dealer; $5 per pound. Cash with order. A. J. GLANISTER, R. D. 34. Trumansburg, N. Y.

STRAWBERRY — Black Raspberry Plants. Wait! Don't order your plants until you get our prepaid prices. We can save you money and furnish the quality. F. G. MANGUS, Pulaski, N. Y.

DAHLIAS—$1.50 per dozen, labeled; $2 per 20, not labeled. Decorative, peony, show cactus. Circular; also white Eskimo puppies, $15 and $20. MRS. HOWARD HOLSINGER, Denton, Md.

DAHLIA BULBS—Beautiful varieties named, twenty cents each, double hollyhock seed, choice, red, white and pink, packet ten cents. J. CALLENDER, Skaneateles, N. Y.

AMAGER STRAIN DANISH BALLHEAD CABBAGE SEED, Imported direct from Copenhagen, Denmark $2.50 lb. postpaid. C. J. STAFFORD, Cortland, N. Y.

PROGRESSIVE AND FRANCIS EVERBEARING STRAWBERRY PLANTS, $1.60 per 100; $10 per 1000. BASIL PERRY, R. R. 20. Georgetown, Delaware.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

SEED POTATOES GREEN MOUNTAINS AND GOLD COIN; First Prize State Fair 1922. Selected stock. ROY HASTINGS, Malone, N. Y.

FOR SALE—Superior Strain, Short Stemmed Home Grown Danish Cabbage Seed. From Selected Heads. C. J. STAFFORD, Cortland, N. Y.

SEED CORN. Red flint took first premium, County and State, show good quality. WM. C. ROTH, R. 2. Kunkletown, Pa.

FOR SALE—Selected sced corn, variety, Angel of Midnight, price, $2.50 per bu. C. F. WHEELER, Mannsville, N. Y.

STERLING, Best Blue Sprout Potato Certified, 320 bushels per acre, $1.20 bushel f. o. b. QUADE BRO'S., Fulton, N. Y.

STRAWBERRY PLANTS. Choice stocky plants at fair prices, catalog free. H. H. BENNING, Clyde, N. Y.

400 BUSHELS OF PROLIFIC (Silvermine type) Oats at Farmers' prices. OWNLAND FARM, Hammond, N. Y.

AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

MISCELLANEOUS

FOR SALE—Good water-power feed mill, buckwheat flour outfit, planing and sawing mill, with 23 acres of land, good house and barn on State Road, one mile to school and railroad, splendid opportunity for right man; price $6,000. Write, F. A. ANNIS, Brookton, N. Y.

SONG HITS—This is my cry for extra dry; The men that follow behind plow. Price 10 cents. Agents wanted. JESSE MATHIS, Leeds Point, N. J.

PRINTING—Letterheads, billheads, envelopes, circulars. Write requirements. Samples free. FRANKLIN PRESS, B-28, Milford, New Hampshire.

ONE CHICK BROODER—240 capacity; One 4 section oat sprouter. Both for $25. WILLIAM T. HERWICK, Falconer, N. Y.

WANTED AGENTS to introduce Honeysene, with free samples. Address, E. BEN KNIGHT, Penn Yan, N. Y.

UNLEACHED—Ashes. GEORGE STEVENS, Peterborough, Ontario.

MISCELLANEOUS

SACRIFICE FOR CASH—Fairbanks Power. 100 light, 32 volt. Electric Plant. Good condition, used 3 years. Replaced by Hydro-Electric. $250. KELLY BROS, Halcottsville, N. Y.

WANTED TO EXCHANGE, 5x7 Carrsasa anastigmat lens, first class, value $75, for phonograph of equal value, write. SEWARD WILLIAMS, Martville Cayuga Co., N. Y.

FOR SALE—Recleaned, Cornell, Cornewell seed oats. Also American, banner, Cornell inspected. Send for sample. WALTER JUNE, Theresa, N. Y.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

FERRET OUT THOSE RATS, we have white or brown, either sex, also bred females, list free. J. E. YOUNGER, Newton Falls, Ohio.

SAP PAN FOR SALE—used one season, 9 ft. x 6 ft. Price ($12) twelve dollars. Inquire of A. P. STOWALL, Gouverneur, N. Y.

PRINTING OFFICE—12 x 18 Golding Jobber, 30-inch paper cutter; 85 cases of body and job type. GEO. COLVIN, Dalton, Pa.

FOR SALE—Family Russian sleigh, spring mounted. Cost $400. Like new. Sell for $60. SCHALLER, Route 4, Troy, N. Y.

FOR SALE—South Bend gang plow. Two bottoms. Good condition. Very cheap. A. H. HAVER, Lebanon, N. J.

150 NOTEHEADS, 100 white envelopes printed and mailed $1. Samples printing free. SUNCO, Mohawk, N. Y.

DAHLIAS, mixed varieties; fifteen bulbs for $1. Postage extra. B. B. VOSBURG, 230 Lack. Ave., Dupont, Pa.

FOR SALE—Empty feed bags; burlap and cotton. Box 75, Greenlawn, N. Y. JOHN MORTON, Huntington N. Y.

MILK TICKETS a specialty. Samples free. BONDS PRESS, Middletown, N. Y.

REAL ESTATE

FOR SALE—50-acre Truck and Dairy Farm along brick road; close to good markets; over $1,000 worth of stock and machinery included; buildings worth price; asked $9,000, terms to suit; income for 1 month will make yearly payment; heat and light plant; spring water in house. W. R. FYE, Salix, Pa.

FOR SALE— Extra good 90-acre farm on macadam road in central New York. Good buildings and equipment. Horses, cows, chickens, tools, crops, etc. Box 113, AMERICAN AGRICULTURIST, New York City.

FOR SALE—300-acre general farm, including large amount of timber, amazing bargain, write for my offer and be convinced. Will trade for small place. Box 114 AMERICAN AGRICULTURIST, New York City.

ings $11,000; cash $2,000. J. D. GRIMES,
FOR SALE—105 acres, located mile to market, on Canandaigua outlet; barn 116 x35; good house, cabbage house, other buildPhelps, N. Y.

TWO FARMS NICELY LOCATED. Good water, soil, fruit 30 and 50 acres respectively. Buf of owner, save commission. Box 123, AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE—Dairy, general purpose. Ample tillage; pasture; woodland, Rensselaer County, New York, bargain. Box 104, AMERICAN AGRICULTURIST, New York City.

100 ACRES, two story, eight room house, farm buildings, fruit, twenty-five acres timber $2,500. Part cash. Box 109, AMERICAN AGRICULTURIST, New York City.

SIXTY ACRE FARM, paved road; good buildings; furnace; silo; stock tools; hay, $4,300, Chautauqua County. Box 110, AMERICAN AGRICULTURIST, New York City.

60-ACRE FARM; paved road, good buildings, furnace, silo, stock, tools, hay, $4,300. Chautauqua County. Box No. 110 AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE OR RENT—160 acres, four miles to village, horses, cows, chickens, tools; latest improvements. CHARLES SCHRADER, Route 1, Herkimer, N. Y.

FOR SALE—196 acres, highly productive, good buildings, main highway, centralized school, dairying and general farming. DONALD SIMONS, Espyville, Pa.

WANTS TO WORK FARM ON SHARES, 25 cows or more, between Addison and Elmira or vicinity. Box 107, AMERICAN AGRICULTURIST, New York City.

FARMS FOR SALE—31 acres, good buildings, lots of fruit; excellent location near State Road. Box 106, AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE—42 acres, near good markets; price reasonable, new house, big orchard. Box 105, AMERICAN AGRICULTURIST, New York City.

FOR SALE—114 acres, two houses; two barns, fifteen miles to Philadelphia, $200 per acre. Box 108, AMERICAN AGRICULTURIST, New York City.

FOR SALE—Delaware County Dairy Farm of 108 acres. MARY A. FINCH, Sidney Center, N. Y.

FOR SALE—Farm of 90 acres near Baltimore. M. C. CORCORAN, Glenarm, Md.

REAL ESTATE

2107 ACRE; stock, grain, grass, timber farm; 1,000 acres, rich level land; cultivated between Richmond and Washington; 8 miles level road to station. Good residence, large barns, tenant houses; 17-million oak and pine, timber, large, tall, smooth, straight, $62 acre worth double. LAFAYETTE MANN, 123 N. 8th St., Richmond, Va.

OWNER WILL SELL PRODUCTIVE VILLAGE FARM, improved road; Finger Lake region, near city, splendid buildings; immediate possession. American Agriculturist. WM. T. HATCH, R. D. Merrifield, N. Y.

FOR SALE—Niagara County, New York, farm, 88 acres; 35 fruit, excellent location, good buildings. Write for particulars. Box 117, AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE—Dairy, general purpose, ample tillage, pasture, woodland, Renssealaer County, New York, bargain. Box 104, AMERICAN AGRICULTURIST, New York City.

FOR SALE—100-acre farm, fertile land, good buildings, cheap for cash, good location, address care of American Agriculturist. F. E. CLARK, R. 8, Lockwood, N. Y.

FARM FOR SALE—90 acres, fine soil, excellent buildings, two spring brooks, fine market, excellent opportunity. WILLIS STREETER, Fulton, New York.

TIMBER LOT FOR SALE, 126 acres, about 4 miles from railroad, mostly all upland, address American Agriculturist. MR. J. D. TRUMBLE, Clay, N. Y.

WANTED TO BUY A FARM of 200 acres, or more, near a lake, send full particulars in first letter. S. JOSEPH, 1015 White Place, Utica, N. Y.

FORTY-SIX ACRES FOR SALE—Buildings, sugar bush, alfalfa, fruit, good water, drainage. Box A, MAPLE HILL FARM, Lafayette, N. Y.

140-ACRE FARM FOR SALE—One of the best producing farms in Mercer Co., Pa., near the best of markets. G. R. DERR, R. D. 45, Greenville, Pa.

FARM FOR SALE—117 acres, excellent location, quarter mile from State Road, good buildings. STEVE NOVOTNY, Box 165, Portage, Pa.

FARM FOR SALE—110 acres, cattle, horses, farming, tools, never failing water. ROSCOE BROOKER, South New Berlin, N. Y. Chenango Co.

FOR SALE—Greenlawn station, corner lot, 85 ft. on Broadway, 150 Central Avenue; price, $1,000. EDGAR S. SAMMIS, East Northport, L. I.

FARM FOR SALE—198 acres, 13 cows, all machinery, good location, on State Road, CHARLES PILARCZYK, Taberg, Oneida Co., N. Y.

FARM FOR SALE—50 acres, all stock and tools; excellent location, near State Road and trolley line. M. RAFFTESAETH, Allegany, N. Y.

FARM AND MINERAL RIGHT for $25,000; 20-acres fertile soil, good timber, common buildings, write, J. L. PAYNE, Abraham, W. Va.

FOR SALE—60-acre farm, productive land, two houses, two barns, near market. A. B. GROSVENOR, Olyphant, Lacka. Co., Pa.

FOR SALE—124 acres, with good buildings, 19 head cattle team and implements, write WALTER MEYER, R. 3. Cattaraugus, N. Y.

FOR RENT, Farm of 50 acres, 7 cows, flock of sheep, renter to furnish team and tools. MRS. RUTH SCOTT, Pleasantville, Pa.

GOOD FARM FOR SALE—130 acres, well wooded; owner ill, unable to work; terms reasonable. ORRIN DEXTER, Luzerne, N. Y.

GOOD FARM FOR SALE—97 acres; $3,500, good water in house, barn and pasture always. W. E. BRAKEMAN, Hartstown, Pa.

FOR SALE—First-class Farm; 126 acres; 5 miles from Albany, new house, barns first class. MYRON HUNGERFORD, Albany, N. Y.

FARM FOR SALE—125 acres, 2½ miles from town; all improvements, with or without stock. CHAS W. CHANDLER, Athens, Pa.

FOR SALE—58-acre fertile farm, half mile to cheese factory, school, church, and store. JOHN GALUSKA, R. 1. Cranesville, Pa.

FOR SALE—128-acre farm, part bottom, good house, fruit, timber; price, $28; easy terms, write, J. FRIESE, Evans, W. Va.

FARM FOR SALE—119 acres, good land, on macadam, building complete, stores, school, nearby. C. B. BOICE, Newfield, N. Y

FOR SALE—Farm, 166 acres, good buildings cheap, some timber, terms. HARRY SHERMAN, R. D. 2. Richford, N. Y

FARM FOR SALE—26 acres, good water and fruit, 4 miles to town. MRS. GEO. BUTLER, R. 1, Bain Ridge,, N. Y.

FARM FOR SALE—200 acres, $35, and best bargain in Western New York for price. GEO. PEABODY, Springwater, N. Y.

FARM FOR SALE OR RENT—120 acres, team, cows, sheep, hogs, hens, large woodlot, logs. FLOYD PERKINS, Jay, N. Y.

FARM FOR SALE—268 acres, stock and tools if desired; slightly rolling 150 acres. WM. H. PERRY, Almond, N. Y.

FARM FOR SALE—175 acres, 40 cattle, near railroad and high school. FRANK S. ARMSTRONG, Walton, N. Y.

REAL ESTATE

FOR SALE—Maple Terrace, Gentleman's Country Home; house of 12 large rooms; high ceilings; bath, hot and cold water; electric light plant; furnace; two large barns and other buildings, 12 acres; apples, peaches, pears, cherries, berries, alfalfa. One-half mile from village, 9 miles from Syracuse, on New York State Highway; price $15,000. FRED L. WHITE, Camillus, N. Y.

FOR SALE—300-acre general farm; including large amount of timber; amazing bargain, write for my offer and be convinced. Will trade for small place. Box 114, AMERICAN AGRICULTURIST, New York City.

FOR SALE—Fruit farm and summer resort. Excellent house and water supply; orchard, sugar bush and complete equipment. Box 119, AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE—200 acres, good location, all equipment, cheap, immediate possession; for particulars write owner, ROBERT RYDER, I Cold Brook, N. Y.

FOR SALE—Productive, paying sightly; farm on Lake Ontario; timber, orchards, good buildings and fences; reasonable. DANA P. WALDRON, Wolcott, N. Y.

FARM FOR SALE—31 acres, good buildings, lots of fruit, excellent location, near State Road. Box 106, AMERICAN AGRICULTURIST New York City.

FARM FOR SALE—50 acres, in Western Pennsylvania, good land, location and road near railroad. Box 116, AMERICAN AGRICULTURIST, New York City.

CITY FARM—58 acres, equipped, good buildings, orchard, berries, loam soil, woods, 3 miles city. Box 115, AMERICAN AGRICULTURIST, New York City.

190-ACRE FARM with full equipment; 4 miles to Cornell University. For price and particulars, write, Box 121, AMERICAN AGRICULTURIST, New York City.

FOR SALE FARM—128 acres, good buildings; fertile soil; spring water; lots of fruit; centralized school, tools; 25 cows; $12,000. F. H. CAMPBELL, Espyville, Pa.

FARM FOR SALE—70 acres, stock and farm implements. If interested write for particulars. Box 118, AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE—75 acres, on State Road, good location and land. On good easy terms. Box 122, AMERICAN AGRICULTURIST, New York City.

FARMS FOR SALE—42 acres, near good markets; price reasonable, new house; big orchard. Box 105, AMERICAN AGRICULTURIST, New York City.

FARM WANTED near Stillwater Village, Saratoga Co., about 50 acres, fully equipped; lowest cash price. F. E. BALDWIN, 534 West 153 St., N. Y. C.

FOR SALE—98 acres, part improved, rich soil, near station, school, church, markets; good buildings, fruit. SCOTT KELLER, Bowden, W. Va.

FARM FOR SALE—170 acres, excellent location on State road, running water, electric light. EDWIN HANNAY, Westerlo, Albany Co., N. Y.

FOR SALE—Dairy, Poultry, Truck Farm, 120 acres, good soil, buildings, woodlot, markets,, improved highway. H. L. SEWARD, Lockwood, N. Y.

FARM FOR SALE—104 acres; 1 mile from village; high and grammar school near; $10,000. MRS. L. D. APPLIGATE, R. D. 2, Trenton, N. J.

FOR SALE—112-acre farm, nearly level, productive, plenty fruit, stone house; easy terms large barn. ARTHUR PHILLIPS, Creamery, Pa.

FOR SALE—104-acre farm, 15 head, team, tools and crops all included for $6,600. Box 112, AMERICAN AGRICULTURIST, New York City.

90-ACRE FARM under good cultivation, good buildings, well watered, near good schools; price $4,000. C. A. HITES, Townville, Pa.

TO BUY CHICKEN FARM OR HOUSE within 25 miles of Utica; state description and price. R. HORIGAN, 802 McVean St., Utica, N. Y.

FARM FOR SALE—110 acres, all equipped; 1½ miles from milk station, trolley, State Road. LYNN WEEKS, R. D. 2, Hartwick, N. Y.

56 ACRES ON CAR LINE, 10 minutes to Conneaut Lake Resort; $5,000. Terms. Box 120, AMERICAN AGRICULTURIST, New YORK CITY.

FOR SALE—Spring Brook Farm, 223 acres, excellent location on Lake Champlain and State Road. FRANK E. BENUS, Ticonderoga, N. Y.

FARM FOR SALE—Hundred acres cleared; State Road, 19 cattle, 2 horses, chickens, tractor, machinery. Box 65, Springville, Pa.

FARM FOR SALE—100 acres, fine location, near Lake Wesauking, Wysox shipping point. LEONARD P. KING, Route 5, Towanda, Pa.

FOR SALE—150 acres, new house, good barns; for Finger Lake region; orchards and wood. WILKU LEIGH, Seneca Falls, N. Y.

FARM FOR SALE—100 acres poultry and stock farms; fine location; or two houses to rent. FLOSSIE SNYDER, Lackawack, N. Y.

DAIRY FARMS FOR SALE—70 acres and 160 acres, L. E. SMITH, Richville, N. Y.

REAL ESTATE

TEN-ACRE FARM FOR SALE. 5 acres in apples; double house; hot water, heat and bath; good repair; all out buildings; modern poultry plant. Near trolley, schools, large lake, and growing community. Only $8,500; $3,000 in cash. GIBBS BRAISLIN, Burlington, N. J.

FARM FOR SALE—95 acres, two miles from Lincoln Highway and station, good buildings; no waste land; young orchard, four-foot vein coal, opportunity to lease; price reasonable. O. V. HAWKINS, Kensington, Col., Co., Ohio.

FOR SALE—53-acre fertile farm, one mile from Conneautville, Pa., stock and implements, also household goods if desired. MRS. MARGARET WOODINGS, Conneautville, Pa.

$100 down and possession; balance $800; 61-acre farm, dwelling, barn, fruit trees, spring water, good soil, timber. MRS. C. A. MOON, 654 N. 46th Street, Philadelphia, Pa.

FARM FOR SALE—20 acres; 7-room house; barn, garage, hen and hog house. Wood lot, sugar bush. Stock and tools. DAVID COMPO, R. 6. Boomville, N. Y.

FOR SALE—164-acre farm near State Road, good water and fair buildings. Box 111, AMERICAN AGRICULTURIST, New York City.

FARM FOR SALE—101 acres, on improved road; 2 mile from village, write for description. MRS. ELLEN HARRIS, Moravia, N. Y.

FARM FOR SALE—94 acres, good buildings, running water, fine sugar bush and tools. FRANK KINGSLEY, South Otselic, Chenango Co., N. Y.

FARM FOR SALE—120 acres, mostly river flats; fine large buildings. On State Road, orchard. BERGH BECKER, Central Bridge, N. Y.

40 ACRES, level black soil, barn and house, some repairing. Good road, school, $3,000, owner, WALTER JACK, Pierpont, Ohio.

FOR SALE—164-acre farm near State road, good water and fair buildings. Box 111, AMERICAN AGRICULTURIST, New York City.

DAIRY FARM FOR SALE—135 acres, fully equipped, 40-acres timber, close to railroad. J. A. BOVARD, Bronchton, Butler Co. Pa.

FOR SALE—104-acre farm, 15 head, team, tools and crops all included for $6,600. Box 112, AMERICAN AGRICULTURIST, New York City.

FOR SALE—103 acres of good coal land, ½ mile from railroad station at a bargain if taken soon. IRWIN SHAFFER, Ramsaytown, Pa.

FARM FOR SALE—59 acres, 1 cow; 2 heifers; 1 team, harness, farming tools, all $1,600. CLYDE JACOBS, Unityville, Pa.

FARM FOR SALE—51 acres, very productive, good roads, market, 7 miles to railroad. WILSON FEICK, R. 1. Hamburg, Pa.

FOR SALE—100-acre farm, good buildings, running water, near village and creameries. N. C. OVERGARD, S. N. Berlin, N. Y.

FARM FOR SALE—117 acres, sandy loam, excellent location, good markets, bargain for quick sale. F. S. HUPP, Limaville, Ohio.

FOR SALE—48½-acre farm, good market, would make ideal summer home. Particulars. ISAAC COMBS, Schroon Lake, New York.

FARM FOR SALE—60 acres, good buildings, cows, hens, tools, fruit, near Milk plant. FRANK T. STEWART, Centerville, Pa.

FOR SALE OR TRADE—78 acres, stock and tools, good location, mail, telephone, fruit. S. H. DOPP, Holland Patent, N. Y.

FARM FOR SALE—or work on shares; 250 acres, excellent soil, good location. R. J. M., R. F. D. Lyons, N. Y.

82-acre farm, stock, tools; fine location, water in house and at barn, $2,500. U. O. BUNTING, Worcester, N. Y.

FARM FOR SALE—100-acres on State Road, 2 miles from market. CHAS. RUSSELL, R. 6, Medina, N. Y.

FARM FOR SALE—Boarding and milk. Excellent location, with all stock. Price, $5,500. GEO HALBOTH, Box 60, Garfield, N. Y.

SPLENDID FARM OF 268 ACRES; will take property or registered cows in part payments. MAUD DWIGHT, South Otselic, N. Y.

FOR SALE CHEAP—Large grain, Dairy Farm; good buildings, macadam road, near railroad town. Box 128, Nichols, N. Y.

FARM FOR SALE—100 acres; 13 cows; 3 horses; 150 chickens; 2 sows. PETER KORMANEK, Route 1, Amsterdam, N. Y.

FARM FOR SALE of 150 acres, rich soil. Adapated cabbage and canning crops. DANIEL LYNCH, Phelps, Ontario Co., N. Y.

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The Valley of the Giants—*By Peter B. Kyne*

"BUCK, you're a wonder."

"Not at all. I've merely been through all this before and have profited by my experience. Now, then, will the city council grant you a franchise to enter the city and jump Pennington's tracks?"

"I'm sure I don't know, Buck. You'll have to ask them—sound them out. The city council meets Saturday morning."

"They'll meet this evening—in the private dining room of the Hotel Sequoia," Buck Ogilvy declared emphatically. "I'm going to have them all up for dinner and talk the matter over. I'm not exactly aged, Bryce, but I've handled about fifteen city councils and county boards of supervisors, not to mention Mexican and Central American governors and presidents, in my day, and I know the breed. Following a preliminary conference, I'll let you know whether you're going to get that franchise without difficulty or whether somebody's itchy palm will have to be crossed with silver first."

"Two of the five councilmen are for sale; two are honest men—and one is an uncertain quantity. The mayor is a politician. I've known them all since boyhood, and if I dared come out in the open, I think that even the crooks have sentiment enough for the Cardigans to decline to hold me up."

"Then why not come out in the open and save trouble and expense?"

"I am not ready to have a lot of notes called on me," Bryce replied dryly. "Neither am I desirous of having the Laguna Grande Lumber Company start a riot cutting prices. Neither do I desire to have trees felled across the right of way of Pennington's road after his trainloads of logs have gone through and before mine have started. I don't want my log-landings jammed until I can't move, and I don't want Pennington's engineer to take a curve in such a hurry that he'll whip my loaded logging-trucks off into a canon and leave me hung up for lack of rolling-stock."

"Hum-m-m! Slimy old beggar, isn't he? I dare say he wouldn't hesitate to buy the city council to block you, would he?"

"I know he'll lie and steal. I dare say he'd corrupt a public official."

Buck Ogilvy rose and stretched himself. "I've got my work cut out for me, haven't I?" he declared with a yawn.

Bryce pressed the buzzer on his desk, and a moment later Moira entered. "Permit me, Moira, to present Mr. Oglivy. Mr. Ogilvy, Miss McTavish" The introduction having been asknowledged, Bryce continued: "Mr. Ogilvy will have frequent need to interview me at this office, Moira, but it is our joint desire that his visits here shall remain a profound secret. To that end he will hereafter call at night. You have an extra key to the office, Moira. I wish you would give it to Mr. Ogilvy."

The girl nodded. "Mr. Ogilvy will have to take pains to avoid our watchman," she suggested.

"That is a point well taken, Moira. Buck, when you call, arrive here promptly on the hour. The watchman will be down in the mill then, punching the time-clock."

AGAIN Moira inclined her dark head and withdrew. Mr. Buck Ogilvy groaned. "God speed the day when I'll be permitted to call during office hours," he murmured. He picked up his hat and withdrew. Half an hour later, Bryce looked out and saw him draped over the counter, engaged in animated conversation with Moira McTavish. Before Ogilvy left, he had managed to impress Moira with a sense of the disadvantage under which he labored through being forced, to abandon all hope of seeing her at the office—at least for some time to come. Then he spoke feelingly of the unmitigated horror of being a stranger in a strange town, forced to sit around hotel lobbies with drummers and other lost souls, and drew from Moira the assurance that it wasn't more distressing than having to sit around a boarding-house night after night watching old women tat and tattle.

This was the opening Buck Ogilvy had sparred for. Fixing Moira with his bright blue eyes, he grinned boldly and said: "Suppose, Miss McTavish, we start a league for the dispersion of gloom. You be the president, and I'll be the financial secretary."

"How would the league operate?" Moira demanded cautiously.

"Well, it might begin by giving a dinner to all the members, followed by a little motor-trip into the country next Saturday afternoon," Buck suggested.

Moira's Madonna glance appraised him steadily. "I haven't known you very long, Mr. Ogilvy," she reminded him.

"Oh. I'm easy to get acquainted with," he retorted lightly. He pondered for a moment. Then: "I'll tell you what, Miss McTavish. Suppose we put it up to Bryce Cardigan. If he says it's all right we'll pull off the party. If he says it's all wrong, I'll go out and drown myself—and fairer words than them has no man spoke."

"I'll think it over," said Moira.

"By all means. Never decide such an important matter in a hurry. Just tell me your home telephone-number, and I'll ring up at seven this evening for your decision."

MOIRA gave him the number. She was not at all prejudiced against this carroty stranger—in fact, she had a suspicion that he was a sure cure for the blues, an ailment which she suffered from all too frequently; and, moreover, his voice, his manner, his alert eyes, and his wonderful clothing were all rather alluring. Womanlike, she was flattered at being noticed—particularly by a man like Ogilvy, who was vastly superior to any male in Sequoia, with the sole exception of Bryce Cardigan. The flutter of a great adventure was in Moira's heart, and the flush of a thousand roses in her cheeks when, Buck Ogilvy having at length departed, she went into Bryce's private office to get his opinion as to the propriety of accepting the invitation.

"By all means, accept," he counselled her. "Buck Ogilvy is one of the finest gentlemen you'll ever meet. You'll find him vastly amusing, Moira, and he *does* know how to order a dinner."

"Don't you think I ought to have a chaperon?"

"Well, it isn't necessary, although it's good form in a small town like Sequoia, where everybody knows everybody else."

"I thought so," Moira murmured thoughtfully. "I'll ask Miss Sumner to come with us. Mr. Ogilvy won't mind the extra expense, I'm sure."

"He'll be delighted," Bryce assured her maliciously. "Ask Miss Sumner, by all means."

When Moira had left him, Bryce sighed. "Gosh!" he murmured. "I wish I could go, too."

He was roused presently by the ringing of the telephone. To his amazement Shirley Sumner was calling him!

"You're a wee bit surprised, aren't you, Mr. Cardigan?" she said teasingly.

"I am," he answered honestly.

"I suppose you're wondering why I have telephoned to you?"

"No, I haven't had time. Why did you ring up?"

"I wanted some advice. Suppose you wanted very, very much to know what two people were talking about, but couldn't eavesdrop. What would you do?"

"I wouldn't eavesdrop," he told her severely. "That isn't a nice thing to do, and I didn't think you would contemplate anything that isn't nice."

"I wouldn't ordinarily. But I have every moral, ethical, and financial right to be a party to that conversation, only—well——"

"With you present there would be no conversation—is that it?"

"Exactly, Mr. Cardigan."

"Yes."

"And you do not intend to use your knowledge of this conversation, when gained, for an illegal or unethical purpose?"

"I do not. On the contrary, if I am aware of what is being planned, I can prevent others from doing something illegal and unethical."

"In that event, Shirley, I should say you are quite justified in eavesdropping."

"But how? I can't hide in a closet and listen."

"Buy a dictograph and have it hidden in the room where the conversation takes place."

"Where can I buy one?"

"In San Francisco."

"Will you telephone to your San Francisco office and have them buy one for me and ship it to you, together with directions for using? George Sea Otter can bring it over to me when it arrives."

"Shirley, this is most extraordinary."

"I quite realize that. May I depend upon you?"

"Certainly. But why pick on me, of all persons?"

"I can trust you to forget about it."

"Thank you. I think you may safely trust me. And I shall attend to the matter immediately."

"You are very kind, Mr. Cardigan. How is your dear old father? Moira told me sometime ago that he was ill."

"He's quite well again, thank you. By the way, Moira doesn't know that you and I have ever met. Why don't you tell her?"

"I can't answer that question—now. Perhaps some day I may be in a position to do so."

"It's too bad the circumstances are such that we see so little of each other, Shirley."

"Indeed, it is. However, it's all your fault. I have told you once how you can obviate that distressing situation. But you're so stubborn, Mr. Cardigan."

"I haven't got to the point where I like crawling on my hands and knees," he flared back at her. "Even for your sake, I decline to simulate friendship or tolerance for your uncle; hence I must be content to let matters stand as they are between us."

She laughed lightly. "So you are still uncompromisingly belligerent—still after Uncle Seth's scalp?"

"Yes; and I think I'm going to get it. At any rate, he isn't going to get mine."

"Don't you think you're rather unjust to make me suffer for the sins of my relative, Bryce?" she demanded.

She had called him by his first name. He thrilled. "I'm lost in a quagmire of debts—I'm helpless now," he murmured. "I'm not fighting for myself alone, but for a thousand dependents—for a principle—for an ancient sentiment that was my father's and is now mine. You do not understand."

"I understand more than you give me credit for, and some day you'll realize it. I understand what even my uncle doesn't suspect, and that is that you're the directing genius of the Northern California Oregon Railroad and hiding behind your friend Ogilvy. Now, listen to me, Bryce Cardigan: You're never going to build that road. Do you understand?"

THE suddenness of her attack so amazed him that he did not take the trouble to contradict her. Instead he blurted out defiantly: "I'll build that road if it costs me my life—if it costs me you. I'm in this fight to win."

"You will not build that road," she reiterated.

"Why?"

"Because I shall not permit you to. I have some financial interest in the Laguna Grande Lumber Company, and it is not to that financial interest that you should build the N.C.O."

"How did you find out I was behind Ogilvy?"

"Intuition. Then I accused you of it, and you admitted it."

"I suppose you're going to tell your uncle now," he retorted witheringly.

"On the contrary, I am not. I greatly fear I was born with a touch of sporting blood, Mr. Cardigan, so I'm going to let you two fight. You can save money by surrendering now.

"I prefer to fight. With your permission this bout will go to a knock-out."

"I'm not so certain I do not like you all the more for that decision. And if it will comfort you the least bit, you have my word of honor that I shall not reveal to my uncle the identity of the man behind the N. C. O. I'm not a tattletale, you know, and moreover I have a great curiosity to get to the end of the story."

"Can you remain fair and impartial?"

"I think I can—even up to the point of deciding whether or not you are going to build that road."

"Shirley," he told her earnestly, "listen carefully to what I am about to say: I love you. I've loved you from the day I first met you. I shall always love you; and when I get around to it, I'm going to ask you to marry me. At present, however, that is a right I do not possess. However, the day I acquire the right I shall exercise it."

"And when will that day be?" Very softly, in awesome tones!

"The day I drive the last spike in the N. C. O."

Fell a silence. Then: "I'm glad, Bryce Cardigan, you're not a quitter. Good-bye, good luck—and don't forget my errand." She hung up and sat at the telephone for a moment, dimpled chin in dimpled hand, her glance wandering through the window and far away across the roofs of the town to where the smokestack of Cardigan's mill cut the sky-line. "How I'd hate you if I could handle you!" she murmured.

FOLLOWING the conversation, Bryce Cardigan was a distressed and badly worried man.

For an hour he sat slouched in his chair, the while he viewed every angle of the situation. He found it impossible, however, to dissociate the business from the personal aspects of his relations with Shirley, and he recalled that she had the very best of reasons for placing their relations on a business basis rather than a sentimental one.

It was all a profound and disturbing mystery, and after an hour of futile concentration there came the old childish impulse to go to his father with his troubles.

"He will be able to think without having his thoughts blotted out by a woman's face," Bryce soliloquized.

Straightway Bryce left the office and went home to the old house on the knoll. John Cardigan was sitting on the veranda, and from a stand beside him George Sea Otter entertained him with a phonograph selection. As the gate clicked, John raised his head; then he rose and stood with one hand outstretched. He knew his son's step.

"What is it, son?" he demanded gently as Bryce came up the low steps. "George, choke that contraption off."

Bryce took his father's hand. "I'm in trouble, John Cardigan," he said simply, "and I'm not big enough to handle it alone."

The leonine old man smiled, and his smile had all the sweetness of a benediction. His boy was in trouble and

(*Continued on page* 255)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

WHEN Buck Ogilvy struck Sequoia, things began to hum. He was Bryce Cardigan's old college friend, but because Buck came to push a railroad which Bryce was secretely backing they had to seem unacquainted.

Old Cardigan had been beaten at every turn by the unscrupulous Colonel Pennington, but his son sensed a way to make the Cardigan timber accessible and defeat the Colonel's plan to starve them out. Things were complicated, however, by the fact that Bryce had fallen in love with the Colonel's niece, Shirley, who unknown to him had bought the Cardigan's Valley of the Giants, checkmating her uncle and giving Bryce the necessary funds to wage his fight.

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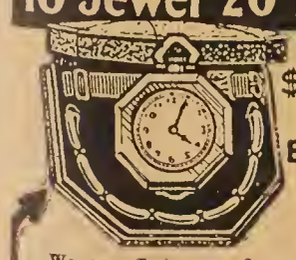

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The Vacuum Tube

A Vital Part of the Radio Receiving Set

By BRAINARD FOOTE

VACUUM tubes will be used almost exclusively by farmers in their radio receiving sets because of their incomparable superiority over the simple crystal as a detector of radio waves. Nor are they complicated in their operation. The radio enthusiast should become acquainted with them and understand how to conserve and get the best service from them.

All tubes are essentially the same in principle, although they may differ somewhat in appearance, in current consumed, and in price. What is a tube, anyway? A glass bulb with practically all of the air removed having three important elements enclosed within it. One of these, which usually occupies a position right in the center of the bulb, is the filament, and it is the same in construction and in operation as the filament of any electric light bulb.

The filaments of tubes sold for radio use are lighted by batteries whose voltage varies from 1½ to 6. The amount of current used runs between ½ ampere and 1 ampere. What is the purpose of the filament? In any metallic substance there are an infinite number of "electrons" or minute negative charges of electricity shooting back and forth within its boundaries. Now, if that piece of metal be heated, some of the electrons will pierce the surface and escape. The hotter the metal becomes, the more electrons are going to escape.

The Electron Activity

There are millions of electrons in the filament of a vacuum tube. The current from the battery passing through the filament, heats the metal and speeds up the electronic activity until many of them dart right out. What happens to them? Surrounding the filament may be seen a spiral coil of wire, the second element of the tube, known as the "grid." For the present, let us assume the grid coil not connected at all, and the electrons passing through its wires. The third element of the tube is a cylindrical or flattened sheet of metal, usually of nickel, which encompasses the other two elements. This is called the "plate," and is connected to a battery of 22½ volts or more, with the positive end of the battery to the plate.

As we noted before, the electrons are negative charges of electricity, and since unlike electrical charges attract each other, the positively charged plate draws the negative electrons from the filament to it in a steady stream. The number of electrons passing over in this way depends upon the brilliancy of the filament and upon the voltage of the plate or "B" battery.

Let us remember now that between the plate and the filament is interposed this spiral coil of wire called the grid. Suppose the grid is connected to the tuning coil of a receiving set. The radio waves striking the aerial, set up a current rapidly changing its direction, as we have seen with our crystal set. This means that the electrical charge impressed upon the grid from the tuning coil will alternate from negative to positive as the current in the coil changes its direction.

With the grid charged with positive electricity, the flow of electrons from the filament will be slightly enhanced, since there will be even a greater positive attraction from them, represented by the positive grid and positive plate combined. But when the aerial current changes, and the grid is charged with negative electricity. What happens then? Like electrical charges, repel each other. Therefore the negative charge on the grid opposes the flow of electrons from the filament, since it completely surrounds it. Of course it cannot completely throttle the flow of electrons, but it reduces the flow in accordance with the strength of the negative charge.

Cutting off the passage of electrons to the plate will naturally cut down proportionately the amount of current flowing in the telephone receivers, and produces a fluctuation of the telephone current in sympathy with the fluctuation of the charge on the grid coil. The vacuum tube may be seen to have a "trigger" action, since a small variation in the charge on the grid controls a much larger amount of current through the receivers. The operation may be likened to that of a simple hand valve on a large supply line, where a great volume of water may be controlled by an easy movement of the valve. In fact, vacuum tubes in England are called "valves" because of that analogy.

Get Good Tubes

Little can be said about the value of a certain tube just from its appearance, and for this reason the radio purchaser should always insist upon a tube manufactured by a manufacturer of national repute. There is a critical value of the amount of air removed, and the amount of gas present in a tube, which can scarcely be attained in manufacture except where the process is carried on in a large well-equipped factory.

The WD-11 tube, which operates on a single dry battery, is unusually scarce at present, but a new tube will soon appear on the market, which is the same in construction and in operation, but which fits the standard tube socket. It will be known as the WD-12. Another new tube which is now available, is the UV-201 A tube, which is similar though superior to the old familiar UV-201. The UV-201 A requiries but one quarter of an ampere filament current, and may be lighted from four dry cells connected in series or from the regular 6-volt storage battery. This is quite an advantage over the 201 tube, which requires four times as much current. However, the 201 A is not quite as satisfactory for detection purposes as the 200, and will be used more extensively for amplification.

Several types of Navy tubes are available. The VT-1 operates well as detector or amplifier, and the VT-2 being especially suited for amplification where there is considerable volume to be taken care of. Both these tubes require a storage battery for satisfactory operation. It may be stated as a general rule that no tube should be illuminated more brilliantly than necessary for good volume or good regeneration, for fear of shortening its life or burning it out by excessive current. The 1½-volt tubes should be treated with exceptional care in this respect, and their filaments should display nothing more than a very faint red glow when they are operated properly.

The Valley of the Giants

(*Continued from page* 254)

had come to him. "Sit down, son, and tell the old man all about it."

Bryce obeyed, and for the first time John Cardigan learned of his son's acquaintance with Shirley Sumner and the fact that she had been present in Pennington's woods the day Bryce had gone there to settle the score with Jules Rondeau. In the wonderful first flush of his love a sense of embarrassment had decided Bryce not to mention the matter to John Cardigan until the *entente cordiale* between Pennington and his father could be reëstablished, for Bryce had entertained for a few days a thought that he could bring about this desirable condition of affairs. The discovery that he could not, together with his renunciation of his love until he should succeed in protecting his heritage, had further oper. ted to render unnecessary any discussion of the girl with the old man.

With the patience and gentleness of a confessor John Cardigan heard the story now, and though Bryce gave no hint in words that his affections were involved in the fight for the Cardigan acres, yet did his father know it. And his heart went out in sympathy for his boy.

"I understand, sonny, I understand. This young lady is only one additional reason why you must win, for of course you understand she is not indifferent to you."

(*Continued next week*)

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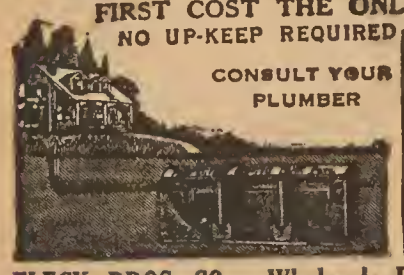

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Dickie, The Pet Raccoon

A Story for the Children—More Pin Money Hints

OF all the pets I've ever had, none gave me more fun than my clever little raccoon "Dickie." Dickie was perfectly tame, very smart and most affectionate.

In their wild state, of course, raccoons will fight and bite viciously, also scratch and dig with their hind feet, all four feet having long, sharp claws or nails. When full size, they weigh from twelve to fourteen pounds. They have two sets of fur, something like the angora cat, only heavier. The under or short fur is very thick and fine, and varies in color, some I have owned being dark brown, while others were quite light. The outside hair is long and grey, slightly brown-tipped. Their tails are round and fluffy and striped alternately brown and grey. When wild, they catch mice, birds and dig certain roots; climb for all kinds of nuts; steal the farmer's corn if they are near a farm; are mischief-makers, for they will pull down a great deal more than they eat or carry away; are great for stealing poultry, which they invariably carry to their nest. They have sharp, quite pointed black noses, and black bead-like eyes.

When tame, these eyes just shine with fun and mischief. They are terribly curious, wanting to handle and examine everything they see. Their velvety front paws are like little black hands, thumb and all. If you get them young, they are the most affectionate and intelligent animals. They love those who love them, and learn to obey and are as clean as a well-trained cat or dog. They do not enjoy being washed off all over very much, but love to play in water with their hands. I think their fur is so thick that after a bath they feel cold before they are dry, but they love to have their face and hands washed and wiped. They walk and sit up like a bear.

Some of Dickie's Tricks

Dickie would put his arms around my neck and hug and kiss me, and I had a little bibbed apron with armholes which I would hold up before him, and he would stand up and put his arms through the holes. Then I would take him up and feed him bread and milk with a spoon just as you do children. He had a low basin which I would fill with water, and he would sit there and wash marbles hour after hour. Once he washed his cookie, which he loved, and it went to mush, and he just whined.

When I sat down to sew, he sat up on the sofa and played with a string of buttons, or rattle box, or a thimble. That thimble was always a curiosity to him, some way. He would hold it with one hand against his stomach and look right up at the wall overhead, and feel inside the thimble. Then he would bite on it, until he bit tiny holes through it. I have the thimble to-day. He would take everything out of your pockets and put them back, and even hairpins out of your hair, unless you said, "Don't do that, Dickie."

Coons have to be watched constantly, for they are so curious and mischievous. One day I hurried into another room, leaving a pail of skimmed milk on the floor, and also some ashes in the coal scuttle. When I came back, he was so still I stopped to see what he was "up to." He would wet his little paws in the milk, then pat them in the ashes, and he had the pantry door plastered all over as high as he could reach.

Raccoons are wonderful pets if one has time and patience to care for them. Ours never bit or hurt us. They and the kittens played together. They and the good dog were friendly, yet they did not seem to like to be left alone with him. They have a fear, a natural one, of dogs, I guess.

I sold Dickie finally to a professor at Ithaca. About six months later I went to see him, and he just fell into my arms and couldn't kiss me enough. I took along his little apron and bread and milk and a spoon and fed him. He had forgotten nothing. I hope the story of Dickie will give some who know nothing of coons an idea of what really intelligent little woods-people they are.—MRS. IDA A. BROWN.

A SONG FOR WINTER

NANCY BUCKLEY

Oh! the little flakes are falling, falling white and fair,
Like a host of butterflies, swift-darting through the air;
And the little winds are calling, calling soft and low,
As amid the friendly pines they wander to and fro.

Oh! the little stars are singing, singing in the sky,
Listening to the silver waves that beat a clear reply;
And my little dreams are bringing, bringing back to me
Days of joy and sweetness, happy days that used to be.

COTTAGE CHEESE IS PROFITABLE

Some "pin-money pointers" which farm women might appreciate were given me recently by Mrs. Lints, a neighbor who has done wonders with her sale of cottage cheese. Her account of it is as follows:

"Are there opportunities for farm women to earn money? Why, yes, of course, there are. I've earned money off and on all my life, but the easiest that came was my cottage cheese money.

"One winter we milked five Jerseys from which we made butter, delivering to our customers once a week. Preceding the delivery, I turned two days' skimmed, or separated milk into cheese. This we delivered with the butter. Some would be ordered, and the remainder sold readily. People seem to be crazy for good cottage cheese.

"This was about all clear gain, deducting a trifle for the bit of cream I used. The whey I fed to our pigs. I made the cheese into balls wrapped in oiled paper; the selling price figured at 20 cents a pound. Those winter months I earned $55."

This reminded me of a family at C— who are making a great success of cottage cheese. They go so far as to buy outside milk. They make pimento also, which is a great seller. This is made by adding to ordinary cottage cheese and canned pimento peppers. An 18-cent can will flavor quite an amount; this sells for one cent more a ball. On regular days these people send to the surrounding towns boys who peddle it from door to door. Friday night is cheese-supper night in this town.

At some plants more skimmed milk is produced than is taken by the farmers, and it is dumped out. Why do not some ambitious women buy or beg that milk and turn it into profit? Surely, there are many ways of earning pin-money, but making cottage cheese is one of the best, because people really want it.—ELIZABETH HOAG.

Stove for a Dime

A handy, sheet steel folding stove. Folds flat. Weighs 8 ounces. Great for cooking, heating water, warming baby's milk, etc. Hundreds of uses.

Send 10c and this ad to Sterno Corp., Dept. F1, 9 East 37th Street, New York City, and this sample stove will be sent prepaid.

STERNO Canned Heat

The Daily Fuel of a Thousand Uses

Killed 200 Rats At One Baiting

Dog, Ferret and Traps Failed—Amazing Virus Quickly Killed Them All. Not a Poison

"I was over-run with rats," writes H. O. Stenfert of Redford, Mich. "Seemed to be several hundred of them. Dog, Ferret and Traps failed. Was discouraged. Tried Imperial Virus and was rid of them all in a short time. Have found rat skeletons, large and small, all over the farm.

"The year previous Rats killed 200 out of 300 baby chicks. Last year saved them all. Will send for 10 bottles for neighbors, and we will clean up the whole neighborhood."

Rats, Mice, Gophers, in fact all Rodents, greedily eat Imperial Virus on bait. Sets up burning fever. Pests die outside hunting air and water. Harmless to humans, poultry, pets, stock, etc. Economical to use. Indorsed by Farm Bureau Experts and large, nationally known institutions everywhere.

You Can Get Yours Free

SEND NO MONEY. Write today to Imperial Laboratories, Dept. 1003, Kansas City, Mo., and they will mail you two regular $1.00 bottles of Imperial Virus (double strength). Pay postman only $1.00 and few cents postage on arrival. Use one yourself and sell the other to a neighbor, thus getting yours free. Readers risk no money, as Imperial Laboratories are fully responsible and will refund your $1.00 on request any time within 30 days.

SPECIAL ½ PRICE OFFER

We have just imported a quantity of these fine little French Opera and Field glasses at a very low price, and are selling them very little above cost. They are well made of black metal, leatherette covered with leatherette carrying case. Good clear lenses. Adjustable, and nicely finished. They won't last long at this price. SEND TODAY. Well worth $2.00. Postpaid to any address $1.25; or TWO for $2.00.

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SELL ONLY 10 BOXES OF SOAP, each box containing 7 cakes fine Toilet Soap and with every box, give as premiums to each purchaser all of the following articles; a Pound of Baking Powder, Bottle Perfume, Box Talcum Powder, 6 Teaspoons, Pair Shears and Package Needles, (as per Plan 2351) and this artistically decorated Dinner Set is Yours. Many other equally attractive offers and hundreds of useful Premiums or large cash Commission.

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As an inducement we give a 5-Piece Full-Size Aluminum Kitchen Set, consisting of Sauce Pan, Pudding Pan, Fry Pan, Sugar Shaker, and Measuring Cup FREE of cost in addition to the Dinner Set, if you order promptly. You advance no money. We trust you. You risk nothing. WRITE TODAY for our BIG FREE CATALOG and full information for taking orders.

THE PERRY G. MASON CO., 843 Culvert & 5th St., Cincinnati, O. Founded 1897.

Some Interesting Recipes

And an Extra Number of Patterns for Early Spring

TWO recipes for cakes which are especially appropriate just now because of their use of molasses have been contributed by Mrs. Ida A. Brown of Elmira, N. Y. One has no name; she simply calls it a Brown Cake, and some of our readers may recognize it from the description and know it by some other name. The other is called Apple Sauce Cake, and the recipes follow:

A Brown Cake

One well-beaten egg, ⅔ cup brown sugar, 1 full cup molasses, ½ cup sour cream or milk, ½ cup hot coffee, 1 teaspoon soda, 2 teaspoons baking powder, sift in 2 cups of flour.

This needs chocolate icing and filling, and the following is excellent: Two large tablespoonfuls soft butter, 1¼ cups confectionary sugar, 2 tablespoonfuls hot coffee, 2 tablespoonfuls melted chocolate. Beat all together until creamy.

Apple Sauce Cake

One cup of sugar, ½ cup molasses, 1½ cups apple sauce (cold), 2 cups flour, 2 teaspoonfuls soda stirred into apple sauce, ½ teaspoon cinnamon and ½ teaspoon cloves, 1 cup raisins or currants, or both.

This should be a soft cake, and is better as it stands, like most fruit cake.

Mrs. Brown also says that graham flour pudding is popular in her part of the country. As a recipe for using graham flour for pudding is rather unusual, we are glad to pass it along as well.

Graham Pudding

Two cups graham flour, 1 cup molasses, 1 cup sweet milk, 1 cup chopped raisins, 1 beaten egg, pinch of salt, 2 teaspoonfuls soda (dissolved in little warm water).

Steam two hours. It may need a little more flour, depending on the size of the cups used as measures. It should be as thick as cake dough.

WAYS OF FIGHTING ANTS

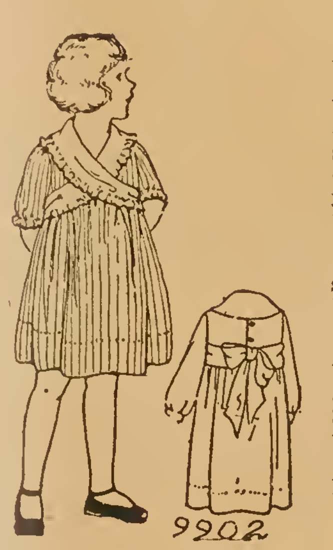
"How can I get rid of ants which have infested my kitchen?"

Here are two suggestions which other housekeepers have found helpful.—Follow the train to its origin. Saturate a cloth with oil of sassafras and apply thoroughly over every portion of their track. If they come through a crack, saturate the edges of the crack with the oil. One ounce will probably be enough. If this does not work at once, repeat the treatment, but be sure you have covered every place through which the ants may gain access to your kitchen.

It is said that if a few drops of paregoric are put in water in a shallow dish the ants will fall in during the night. Red pepper is also said to be efficacious in exterminating them. Perhaps some of our readers may be able to suggest other methods of fighting the pests.

How to decorate a ceiling is sometimes a puzzle. The first rule of the professional is: "Use a color of the same character as that of the wall and floor coverings but lighter in tone." A high ceiling is made to seem lower by means of a border by extending the ceiling cover down the upper wall, or by using a paper with a distinct figure.

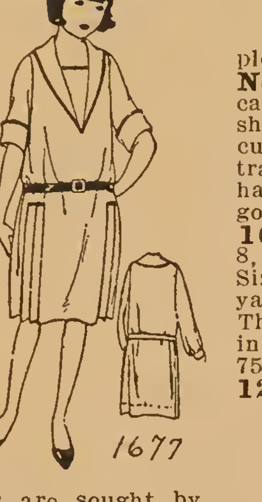
PRETTY SPRING STYLES FOR ALL THE FAMILY



No. 9902 shows a dress for the tiny girl. It has a quaint fichu collar, lace-edged, and tying with a bow in back. Dotted swiss or dimity launder easily and look very sweet **No. 9902** comes in sizes 2, 4, 6 and 8 years. Size 4 takes 1⅝ yards, 30 inch, with ½ yard for fichu and 2 yards ruffling. **Price 12c.**

Separate blouses are back in style. Slip-overs are favorites, in Egyptian, oriental and peasant fabrics, for surely Joseph's coat was never so gay as the new spring blouses. **No. 1640** cuts in sizes 34, 36, 38, 40, 42 and 44 bust. Size 36 requires 2⅝ yards 36-inch material, 2½ yards binding. **Send 12c** in stamps for this clever new pattern.

Made with kimona sleeves and with closing at left side front is this smart little junior frock. The odd long collar, belt arranged in panel style and long sleeve attachment if desired, all make this frock unusually smart for school or Sunday wear. **No. 1715** cuts in 8, 10, 12 and 14 years. Size 8 requires 2⅝ yards 36-inch with ⅝ yard contrasting. **Price 12c.**



A slip-on dress with pleated side panels is **No. 1677.** The sleeves can be made long or short and the collar and cuffs of self—or contrasting material. Gingham, linen or jersey are good materials. **No. 1677** comes in sizes 8, 10, 12 and 14 years. Size 8 requires 2⅜ yards 36-inch material. The dress could be made in gingham for about 75c. **Price** of pattern, **12c.**

Slenderizing lines are sought by every woman with an ample figure, and **No. 1611** has unusually good features. The collar is becoming, the side panels continue the line, and then the uneven edge also carries the eye down. Either fitted or loose sleeves may be worn. **No. 1611** comes in sizes 36, 38, 40, 42, 44, 46, 48 and 50-bust measure. Size 36 requires 5⅛ yards 40-inch material with 12 yards braid. **Pattern, 12c.**

Simple and inexpensive to make is this indoor dress. The three-piece skirt gathers at the back and is attached to the waist. The dress has a front closing, long or short sleeves and large patch pockets.

No. 1636 comes in sizes 34, 36, 38, 40, 42 and 44-bust measure. Size 36 requires 3½ yards 36-inch material with ½ yard contrasting. **Price 12c.**

To order, enclose correct amount (preferably in stamps). Write name, address and numbers clearly, and send to Fashion Department, American Agriculturist 461-4th Ave., New York City.

If you want our big new spring catalogue, enclose 10c more.

Every Day I Send Checks To Women Who Want Money

A Simple Way To Add To Your Regular Income. Interesting Home Work That Pays Well—and That You Can Do In Spare Time

EVERY day about 4 o'clock a bunch of checks is brought to my desk to be signed.

Most of these checks are made out to women. A few are sent to men.

They are all in payment for interesting spare-time work done at home. Work that can be done entirely at one's own convenience—started and stopped just when one finds the time or feels in the mood for it. It's a profitable and dignified kind of work that needn't interfere a particle with other duties.

The checks I am daily sending out to our spare-time home workers range all the way from around $3 to $5 up to around $10, and occasionally as high as $15 or $20 or more.

Some of our home-workers get a check every week. Some perhaps only once a month. How often each worker receives a check and the amount of the check of course depends on the amount of time given to the work. Each worker is free to do as much or as little each day and each week as he or she chooses. Therefore, the amount earned from week to week is in each worker's own hands.

For All Who Want To Have More Money

Some of the many spare-time home-workers who are getting checks every week or so are busy housewives—perhaps with only a few hours a week that they can use for this purpose. Some are school teachers — using their free time after school and holidays. Some are young women who choose to earn money at home instead of taking a place in an office or factory. And some are men.

A few give all their time to this work—finding it more profitable than anything else they can do.

Some live on farms, some in small towns, some in large cities—where one happens to live makes no difference, whatever.

Some have taken up this spare-time work so they can have more clothes, or new furniture, or live better. Some to help pay for a home. Some to get out of debt. Some to help send a son or daughter to college. Some to build up their bank accounts. Some to buy books. Some to provide for long-wanted trips. Some to have more amusement. One woman uses the money she earns this way to help keep a maid—says it is easier and more interesting to knit socks on the Home Profit Knitter than to do the housework herself. Another woman earns money this way so she can afford to send her washing out instead of doing it herself. No matter what the money may be wanted for, here is a pleasant way to earn it.

Extra Money for Any Purpose You Wish

Whether large or small, every one of these home-worker's checks is earned in free time—time that might otherwise be frittered away with nothing to show for it. Thus each check means just that much extra for the person receiving it—extra money for more clothes; extra money for the savings bank, or to pay debts, or to help pay for a home; extra money to help out in any way one wishes.

The Master Knitter

The Home Profit Knitter contains many features and improvements never before seen in any home knitting machine. We guarantee that after a little practice you can do perfect work on it, simply by following our plain and clear instructions.

The Home Profit Knitter has a portable stand, and can be picked up and carried from room to room and used anywhere in the house. It is the Master Machine of all knitters.

The way these people earn their checks is by knitting wool socks on our famous Home Profit Knitter—a simple yet amazingly skillful little knitting machine for home use that is many times faster than hand-knitting. That's why this work pays so well.

Fast or slow, just as you turn the handle, this skillful little Knitter knits and shapes each sock from cuff to heel and toe. It knits either a ribbed or solid weave, and either a plain or fancy top. Also sweaters, Teddy Bear Suits and other articles.

The Rate of Pay is Guaranteed

One doesn't have to know a single thing about knitting to take up this work. Complete instructions that make everything plain and clear come with the Knitter. With practice, anyone who follows directions — anyone who really wants to **learn** money instead of merely **wishing** for it, anyone who is willing to make a little effort and do her part—can soon be turning out perfect socks—and be well paid for every pair.

The pay is sure. The Home Profit Hosiery Company **guarantees** to take every pair of socks you knit on a Home Profit Knitter in accordance with our simple instructions, and guarantees to pay you a fixed price for each pair as fast as you finish them and send them in. There is a big and steady year-around demand for genuine home-knit wool socks, and the Home Profit Hosiery Company wants all it can get. But if preferred, you have the privilege of selling part or all of the socks you knit direct to friends or neighbors or local stores at your own price, instead of sending the socks to us.

I Want to Start More Home Workers

Right now the Home Profit Hosiery Company wants at least a thousand more home workers. If you have been wishing you had more money coming in—if you want money for any purpose—then here is your chance. All you need is a Home Profit Knitter and a little spare time—and the willingness to use it. How much you earn will be in direct proportion to how much time and effort you give the work. You can spend as much or as little time at it each day and each week as you choose. You are always "your own boss." Moreover, other members of the family can take turns with you and help you along—for with practice almost anyone can knit socks on the Home Profit Knitter. And whether you knit a dozen or more pairs every day or only a dozen in a week or month, you can be sure of good pay for all the finished work you send us.

In fairness to yourself and your pocketbook, at least let me send you full information about this spare-time home work plan that is bringing in extra money for so many others. That won't cost you anything. Yet it can easily make a vast difference in your life — it can easily mean hundreds of dollars a year to you. Simply fill out and mail the coupon at the bottom of this page—and it's a good idea to do it now—before you forget about it.

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White and Brown Leghorns	$13.00	$7.00	$3.75
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Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.
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MARKET AWAITS WOOL CLIP

WITH the domestic wool-clip shortly to come into the market, it is not surprising to see the general tone of the raw-wool market somewhat unsettled. Active consumption of wool in this country and abroad has stimulated the market for weeks, although the large turnover of stocks recently has weakened prices on foreign markets. The general view, however, is one of potential demand, and trade gossip on a large American clip now at hand does not indicate that prices should ease off except temporarily during the spring season. Country-point information, particularly from the West, states that contrasting on this season's fleeces is widespread, but only upon a small proportion of the production in most of the wool-producing sections. In mid-March, the feeling was generally one of quiet optimism on the 1923 clip.

POTATO MARKET ACTIVE

An excited potato market developed due to car shortage, bad roads and light stocks in the city markets. Prices jumped from $2.25 per 150-lb. sack delivered New York City to $2.50. Some shippers quoted as high as $2.90 in carlots.

In the yards, States sold from $2.50 to $3 per 150-lb. sack, depending upon quality and condition. Arrivals were light. It is the general opinion that if the car shortage continues and the hauling is bad, prices will hold steady.

APPLES HOLD STEADY

At this time last year best A grade Baldwins were selling wholesale at $7.50 to $7.75, compared with $5.25 per bbl. last week. Greenings, best, A grade, last year at this time brought $11 to $11.50, compared with $5 to $5.25 now. Carlot shipments of barreled apples in entire country to March 3 were 57,605, compared with 29,020 last year to that date.

EGG MARKET UNSETTLED

Cold weather and storms delayed the normal seasonal increase of shipments of eggs last week, and receipts at New York were actually lower than the previous week. This resulted in holding prices up, and for several days Western brown and mixed-color eggs were so scarce that many sales of them were made above quotations. Because of the heavier shipments now in transit, the break will undoubtedly come before you read this page. Many in the market believe that prices will hold up fairly well till after April 1, however, because of the early Easter and the Jewish Passover demand.

Nearby white eggs showed some increase in volume, but moved fairly well. Most State eggs sold around 41 to 43½c, but finest Jerseys went as high as 45 to 47c. It has been many years since brown eggs sold for more than whites on the New York market, as they did last week.

At this time last year the egg market was very weak, and extra fancy nearby whites were quoted at only 33 to 36c, with fancy hennery browns at 26 to 27c.

DRESSED POULTRY OUTLOOK

From January 1 up to March 7 receipts of dressed poultry in the four largest markets were 69,973,874 lbs., compared with 40,504,094 lbs. in the same period last year. The amount of dressed poultry on hand in the four largest markets on March 7 was over 17,000,000 lbs. in excess of the quantity on hand at the same time last year. It is reported that the quantity of poultry on farms this year is much larger than a year ago, which will probably result in larger shipments of fresh poultry. The peak of the storage holdings was reached last year about the middle of January, but this year stocks continued to pile up in storage until February 10, when the peak was reached. Since February 10 the withdrawals have not been sufficient to reduce the excess over last year.

It is encouraging, however, that the consumption of poultry seems to have considerably increased, and there is some demand for our poultry in British markets.

Live broilers have been arriving in small lots from Long Island, Pennsylvania, Boston and Virginia.

BUTTER OUTLOOK GOOD

Owing to heavier receipts, prices declined last week, but on March 8 the market closed firmer owing to information that new arrivals were falling off and increased buying on the part of chain stores and other large organizations.

At this time last year, creamery extras sold wholesale at 37 to 37½c, compared with 47c per lb. on March 8 this year.

CASH GRAIN QUOTATIONS

The following were cash grain prices at New York March 9:

No. 2 hard winter, $1.32½; No. 2 mixed durum, $1.23½; No. 2 yellow corn, 91½c; No. 2 mixed corn, 91½c; No. 2 white oats, 56c; rye, 93½c; barley, 81 @ 82c; buckwheat, $1.92 @ 2.10. At Chicago: No. 2 hard wheat, $1.19 @ 119½; No. 2 yellow corn, 74¼ @ 74½c; No. 2 white oats, 45¾ @ 46½; rye, 81½c; barley, 68 @ 71c.

CHOICE DRESSED CALVES SCARCE

Supplies of country-dressed calves increased last week, and double receipts are expected from now on. Fresh, choice calves are scarce and in demand, but trade for ordinary grades is only moderate. Stall calves sold at irregular prices. On March 8 fresh receipts per lb., choice, sold at 18c; prime, 16 @ 17c; good, 14 @ 15c; medium, 11 @ 13c; small or common, 6 @ 10c; hind saddles, with skins, 16 @ 20c; without skins, 18 @ 22c.

FEED PRICES CHANGE SLIGHTLY

The Buffalo feed market was dull last week, with slight declines in a number of commodities. Prices on carlots f. o. b. Buffalo in 100-lb. sacks March 7 were:

Gluten feed, $46.55; cottonseed meal, 36 per cent, $47.25; oil meal, 33 to 34 per cent, $49; standard spring bran, $34.75; hard winter bran, $35.75; standard spring middlings, $34.75; choice flour middlings, $36.25.

LOWER GRADE HAY DECLINES

Receipts of hay considerably increased last week, but most of the shipments from New York State were under grade. Prices declined to a moderate extent on these undergrades, but top grades are still comparatively scarce.

Railroads have issued more permits, and unless weather conditions in the country hold up the movement, the New York market will be well supplied within the next two weeks.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on March 9:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras...	44@47	....	....
Other hennery whites, extras	43	....	....
Extra firsts	41@42	39@41	39
Firsts	40@40½	....	37
Gathered, whites, first to extra firsts	40@42	....	....
Lower grades	39½	....	....
Hennery browns, extras	45@46	....	....
Gathered browns and mixed colors, extras	38@44	38@39	....
Pullets No. 1	39@39½	38@39	....
Butter (cents per pound)			
Creamery (salted) high score	47½@48	53@54	....
Extra (92 score)	47	52@53	50
State dairy (salted), finest	....	48@49	....
Good to prime	....	42@48	....
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade	Standards
Timothy No. 2	$27@28	$20@21	$20@21
Timothy No. 3	24@25	....	17@18
Timothy Sample	19	....	....
Fancy light clover mixed	27@28	....	21@22
Alfalfa, second cutting	28@29	....	....
Oat straw No. 1	15	....	15@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	25@26	24@26	28@29
Fowls, leghorns and poor	22@23	23@24	....
Chickens, leghorns	25	21@23	26@28
Roosters	15@16	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	12 @13¾	11 @14½	......
Bulls, common to good	4 @ 4½	4½@ 5	......
Lambs, common to good	9½@12½	15½@15¾	......
Sheep, common to good ewes	3½@ 5½	7½@ 8½	......
Hogs, Yorkers	8¾@ 9	9	......

MINERALIZED WATER ROUTS CHICKEN LICE

Tablets Dropped Into Drinking Founts Banish Vermin, Make Fowls Grow Faster and Increase Egg Yield

Any poultry raiser can easily rid his flock of lice and mites, make chickens grow faster and increase their egg yield by simply adding minerals to the fowls' drinking water. This does away with all bother, such as dusting, greasing, dipping and spraying. The necessary minerals can now be obtained in convenient tablets, known as Paratabs. Soon after the fowls drink the mineralized water,

all lice and mites leave them. The tablets also act as a tonic conditioner. The health of the fowls quickly improves, they grow faster and the egg yield frequently is doubled. Little chicks that drink freely of the water never will be bothered by mites or lice.

The method is especially recommended for raisers of purebred stock, as there is no risk of soiling the plumage. The tablets are warranted to impart no flavor or odor to the eggs and meat. This remarkable conditioner, egg tonic and lice remedy costs only a trifle and is sold under an absolute guarantee. The tablets are scientifically prepared, perfectly safe, and dissolve readily in water.

Any reader of this paper may try them without risk. The laboratories producing Paratabs are so confident of good results that to introduce them to every poultry raiser they offer two big $1 packages for only $1. Send no money, just your name and address—a card will do — to the Paratab Laboratories, Dept. 889, 1100 Coca Cola Bldg., Kansas City, Mo., and the two $1 packages, enough for 100 gallons of water, will be mailed. Pay the postman $1 and postage on delivery, and if you are not delighted with results in 10 days—if your chickens are not healthier, laying more eggs and entirely free from lice and mites—your money will be promptly refunded. Don't hesitate to accept this trial offer as you are fully protected by this guarantee.

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EGGS
TO THE RIGHT HOUSE
M. ROTH & CO.
ESTABLISHED OVER 30 YEARS
185 Duane Street, New York City
WRITE FOR SHIPPING TAGS

SHIP YOUR EGGS
WHITE AND BROWN
To R. BRENNER & SONS
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CHICKS KERLIN QUALITY

ENGLISH - AMERICAN S. C. WHITE LEGHORNS

CHICKS from 265-270 Egg Strain stock and PEDIGREED STOCK FROM 280 TO OVER 300-EGG HENS. POSTPAID.

Free Feed with each order. One hundred per cent. Safe Arrival Guaranteed. A Special Discount of $3 per 100 Chix on orders placed promptly. Book of valuable information to poultry raisers FREE for the asking. We WANT you to have it. Drop us a card right now before you forget it and let us tell you more about this truly wonderful strain of layers.

Member International Baby Chick Association

KERLIN'S GRAND VIEW POULTRY FARM

BOX 35 CENTER HALL, PA.

A Breeding Institution of Merit since 1900

DAY OLD CHICKS

From Select, Hogan tested, Flocks on free range. Well-fed and handled to insure strong, vigorous Chicks. Heavy Layers.

PRICES, WHITE & BROWN LEGHORNS & ANCONAS, 50, $7.50; 100, $14; 500, $65. BARRED ROCKS, 50, $8.50; 100, $16; 500, $75.

Hatched right and shipped right. Postpaid. 100% live delivery guaranteed. Bank Reference. Order direct from this ad. Circular free. Borst & Rock, Box S, Zeeland, Michigan. Only 20 hours from New York City.

BABY CHICKS

Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 18c. each; White Wyandottes, 22c. each; White, Brown, Buff Leghorns, 15c. each; broilers, 10c. each. Pekin Ducklings, 32c. each. Safe delivery guaranteed by prepaid parcel post

NUNDA POULTRY FARM, NUNDA, N. Y.

750,000 CHICKS

$10.50 PER 100 AND UP. From Hogan tested, well-kept, heavy laying flocks. Wh., Br., and Buff Leghorns, 50, $7; 100, $13; 500, $62.50. Bar. Rocks, Anconas, 50, $7.50; 100, $14; 500, $67.50. Reds, Wh. Rocks, Minorcas, 50, $8; 100, $15; 500, $72.50. Buff Orpingtons, Wh. Wyandottes, 50, $9; 100, $17; 500, $82.50. Mixed, 100, $11; 500, $52.50. Postpaid and full live delivery guaranteed. Order right from this ad. ALSO EGGS FOR HATCHING. Free Catalog. Ref. 4 Banks. Only 18 hours to New York City.

TRI-STATE HATCHERIES, Box 510, ARCHBOLD, OHIO

Attractive Chick Investments

FROM SELECT PURE-BRED FLOCKS

WHITE and BROWN LEGHORNS, ANCONAS, 50, $7.50; 100, $14; 500, $65. BARRED ROCKS, REDS, and MINORCAS, 50, $8.50; 100, $16.50; 500, $75. Discount on orders of 1,000 or more. From extra select flocks $2 per 100 higher. Postpaid to your door. Full live count guaranteed. Bank Reference. Free Catalog. We know it will be to your advantage to get our catalog and full price list before making a final decision regarding your investment in Chicks this season. Send for it TODAY.

COLONIAL POULTRY FARMS Box L, Zeeland, Mich.

300,000 CHICKS

ENGLISH WHITE and BROWN LEGHORNS, SHEPPARD'S Famous Strain ANCONAS, 50, $7; 100, $13; 500, $60. BARRED ROCKS, R. and S. C. REOS, 50, $8.50; 100, $16; 500, $75. 1,000 orders at 500 rate. RHODE ISLAND WHITES, 100, $18; 200, $35. Postpaid, full live delivery guaranteed. Strong, vigorous Chicks from heavy laying flocks. Order right from this ad. WE SATISFY OUR CUSTOMERS. Catalog free. Reference, Holland City State Bank.

KNOLL'S HATCHERY, Box F, HOLLAND, MICH.

GILLETTE'S POULTRY FARMS

Get a brooder free of charge by getting your chicks from Gillette's

WHITE ORPINGTONS	$25.00
BUFF ORPINGTONS	23.00
BARRED ROCKS	22.00
WHITE WYANDOTTES	25.00
WHITE LEGHORNS	18.00

We are now giving away a free brooder. Get your order right in, so as to get the benefit of this offer.

GILLETTE'S POULTRY FARMS, North Rose, N. Y.

SCHWEGLER'S

"THOR-O-BRED"

BABY CHICKS

"Live and Grow Big"

White, Brown, Buff Leghorns, Barred and White Rocks, Rhode Island Reds, Anconas, Black Minorcas, Buff Orpingtons, 12c and up.

Write for free baby chick book.

F. A. SCHWEGLER

204 Northampton, Buffalo, N. Y.

CHICKS

White Leghorns and Anconas. Our stock is scientifically culled by experts and headed by large vigorous males. Assuring you Strong, Healthy, Bred-to-Lay Chicks—that will live and grow. Real Money Makers. 100% live delivery guaranteed. Lowest Prices. Catalog Free.

STERLING POULTRY FARM AND HATCHERY

Zeeland, Mich.

BABY CHICKS

Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

QUALITY HATCHERY, Box B, Zeeland, Mich.

CHICKS THAT MAKE PROFITS

Strong, vigorous, well-hatched Chicks from heavy laying flocks of S. C. White, Brown and Buff Leghorns, Rhode Island Reds, White Wyandottes, White Rocks, Barred Rocks, Buff Orpingtons and Anconas. 100% live delivery guaranteed. Postpaid. Catalog giving particulars, also price list on request. Bank Ref.

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BARRON WHITE LEGHORNS, 303-EGG STRAIN.

Chicks, Eggs, 8-weeks-old Pullets. Circular.

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Smith's Standard Reg. U.S. Pat. Off.

Hatching every day in the week and every hour in the day. We are the world's largest producers.

THREE MILLION FOR 1923

Twelve popular breeds of best thorobred stock obtainable, moderately priced; also QUALITY chicks from heavy laying stock at small additional cost.

We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

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BARRED and WHITE ROCKS, REDS, ANCONAS, MINORCAS, 50, $8; 100, $15; 500, $72.50. BUFF ORPINGTONS and WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. WHITE and BROWN LEGHORNS, 50, $6.50; 100, $12; 500, $60. Postpaid and full live delivery guaranteed. Bank Reference. Order NOW direct from this ad and get them when you want them. Free circular. NORWALK CHICK HATCHERY, Box B6, Norwalk, Ohio. Only 15 hours from New York City.

CHICKS

Husky livable chaps.

Egg machines from high laying, pure farm bred stock. Specialists in S. C. W. Leghorns, R. I. Reds. B. P. Rocks. Sent postpaid, 100% live delivery guaranteed. Eggs and Breeding stock. Illustrated circular "ALL THAT IS NEW IN POULTRY" FREE.

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We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minoreas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

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S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

TRY US AND BE SATISFIED

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Hatched from standard, pure bred, free range stock by long experienced operators. Twelve leading varieties, $10 per 100, up. Shipped Postpaid. Safe delivery guaranteed. Illustrated catalog free.

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CHICKS

from heavy laying flocks that are true to name in Orpingtons, Wyandottes, Rocks, Leghorns, Anconas, Minorcas, and Reds. A REAL HATCHERY—not jobbers. We sell only our own hatched Chicks. Send your name for descriptive printed matter and right prices Postpaid. 100% live delivery guaranteed. Bank reference.

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HIGHEST QUALITY BABY CHICKS

Pure-bred, vigorous chicks that live and grow. From free-range, Hogan-tested healthy hens with the lay bred in them.

	Per 100	500	1000
S. C. White, Brown, Buff Leghorns	$15	$72	$140
Barred Rocks, R. I. Reds, Anconas	$18	$85	$160
White Rocks, Blk. Minorcas	$20	$95	$180

All chicks sent by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. 10% books order any week after Feb. 1.

SHERIDAN POULTRY FARMS SHERIDAN, PA.

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.

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A few April Registered and General Mating Chicks left. Reduced prices for May and June deliveries. Get descriptive catalog of prices, etc.

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Member of N. Y. S. C. P. C. A.

BIG, HUSKY CHICKS

Better, stronger, with plenty of "pep"; chicks easier to raise. That's the kind you have been looking for; that's the kind our system produces. It will pay you to learn how it is done. Write to-day for free new Bulletin C.

ELDEN E. COOLEY, Frenchtown, N. J.

Continental Baby Chicks All kinds sent prepaid. Satisfaction. Orders booked now Address, AGENT, Box 27, GARRISON, N. Y.

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QUALITY CHICKS

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Not only are these chicks of ours well-hatched but they are exceedingly well-bred, especially from the important profit standpoint of heavy egg production.

Coming direct from finest farm-range flocks, you'll find these splendid chicks quick, sturdy growers and the pullets early, generous layers. Profit essentials you're sure of when your chicks are Hillpot Quality.

HILLPOT QUALITY CHICKS

Leghorns Reds Rocks Wyandottes

Pure-bred, true to name all favored with the blood of strains noted for high egg yields.

Send for Free Catalogue and Price List today. Chicks shipped parcel post with safe arrival of full count guaranteed anywhere within 1,200 miles.

W. F. HILLPOT, Box 29 Frenchtown, N. J.

Member International Baby Chick Association.
Life Member American Poultry Association.

BUY HUBER'S RELIABLE CHICKS

Our 14th Year 1,000,000 For 1923

By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.

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HUBER'S RELIABLE HATCHERY North High St., FOSTORIA, OHIO

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Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

PICTURESQUE POULTRY FARM, Box 71, Trenton Junction, New Jersey

CHICKS—$13 to $16 per 100 and UP

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

Varieties	Prices on . . . 50	100	300	500
Buff & White Wyandottes & Buff Rocks	$9	$16	$47	$78
Barred Rocks, R. & S. C. Reds, Anconas	$8	$15	$43	$72
White, Brown & Buff Leghorns	$7	$13	$38	$63

Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW, DIRECT FROM THIS AD, and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free.

KIRKERSVILLE HATCHERY Box D KIRKERSVILLE, OHIO

$11 Per Hundred and Up

CHICKS From Selected, Pure Bred, Hogan tested flocks on free range. First Hatch off February 19th. 175,000 Chicks for season of 1923. 100% Live Delivery Guaranteed. Postpaid.

VARIETIES Prices on	50	100	300	500
White & Silver Wyan., White Orpingtons & Black Minorcas	$9.50	$18	$52	$85
White & Buff Rocks	8.50	16	46	75
Barred Rocks, R. & S. C. Reds, Anconas, & Black Leghorns	8.00	15	44	72
White and Brown Leghorns	7.00	13	38	62
Mixed, all varieties, odd lots		11	33	55

1000 orders at same rate as 500. Get our 1923 Catalog. Reference, Athens National Bank.

ATHENS CHICK HATCHERY, BOX Y, ATHENS, OHIO

GUARANTEED BABY CHICKS

From Hogan tested, free range breeders, mated with large, vigorous males. Our plant is a modern 65 acre poultry farm, with 10 years' careful breeding for heavy egg production. Wonderful winter layers. Winners at leading shows. Flocks are M. A. C. Inspected. Big, strong, vigorous, well-hatched Chicks at following prices: White and Brown Leghorns, Extra Select, $14.60 per 100; Anconas, Extra Select, $15.30 per 100. Select Leghorns, $12.50 per 100: Anconas, $13 per 100. Postpaid to your door, full live delivery guaranteed. Special discount on orders booked now. Order direct from this ad, get them when you want them. Also breeding stock and special mating Chicks. Get our catalog at once. Ref. 2 banks.

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BABY CHICKS

S. C. W. LEGHORNS

S. C. Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

BROOKSIDE POULTRY FARM

Box A SERGEANTSVILLE, N. J.

BABY CHICKS

From carefully selected to lay flocks in BARRED, WHITE and BUFF ROCKS, WHITE and GOLDEN WYANDOTTES, BLACK MINORCAS, BUFF ORPINGTONS, S. C. and R. C. REDS, ANCONAS, WHITE, BROWN, BLACK and BUFF LEGHORNS, and Assorted for Broilers. Produced by men of many years' experience who know how to hatch good, strong, healthy Chicks. Fair prices. Postpaid, full live delivery guaranteed. Get our catalog and full particulars. Bank Reference. NEW WASHINGTON HATCHERY, Box A, New Washington, Ohio.

CHICKS WITH PEP, $11. Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off. Ready February 26th. Free catalog. Member I. B. C. A.

HOLGATE HATCHERY, Box A, Holgate, Ohio

CHICKS

From good selected heavy-laying flocks of Rocks, Reds, Wyandottes, Anconas, Leghorns, Minorcas. Right prices. Postpaid. Full live delivery guaranteed. Bank references. Catalog free. RELIABLE HATCHERY, Box 4, McALLISTERVILLE, PA.

500,000 CHICKS

BEST BREEDS—Lowest Prices. Hatched by experts with 12 years' experience. Satisfied customers everywhere. 100 per cent. live delivery guaranteed. Catalogue Free.

THE KEYSTONE HATCHERY

RICHFIELD, PA.

PORAY'S CHICKS

Can furnish Pure Bred S. C. White Leghorns from Heavy Egg Layers, headed by Certified cockerels. Pedigreed chicks from Certified stock, also eight-week old pullets and up.

P. H. PORAY, R. 2. WILLIAMSON, N. Y.

BABY CHICKS

From 200-Egg Hens

Chicks from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

Glen Rock Nursery & Stock Farm

Ridgewood, N. J.

LOOK! Baby Chicks $10 a 100

All pure-bred varieties. Postpaid. Also low prices on Pullets, Turkeys, Ducks, Geese, Brooders, Supplies, etc. Big catalog mailed FREE. Address

JAS. W. HOUCK & CO., Box 47, TIFFIN, OHIO

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$1 With Order

There are big days, and happy days when your family and your friends sit down to your fine big dinners. Picture your pleasure in having for such occasions a Dinner Set like this: pure, gleaming, flawless white, edged with a smooth, bright, shining gold line, gold handles, and a dainty lower band of colorful orange. Then think of the added satisfaction of this distinctive feature: **Your Own Initial on Each and Every Piece.** Each initial set in an artistic wreath which is banked by a charming scroll of roses in beautiful colors. This illustration does not begin to do it justice.

Martha Washington Colonial Shape Initial Dinner Set

110 PIECES

No picture, no description can do justice to this exceedingly beautiful dinner set. I want you to see it on your own table. I want you to know the Attractiveness of its Aristocratic Martha Washington Colonial Shape, the Beauty of its Gold Border. I want you to see with your own eyes how the big, wide, gorgeously brilliant gold handles enliven, enrich and beautify the set. Then I want you to know the Pride of Possessing a big, fine, high-class dinner set that has your initial on each and every piece. So, I will gladly send you the entire set, 110 Pieces, on 30 days' Free Trial. The picture above shows, in reduced size, the attractive initial design. This design is in 6 harmoniously blended colors.

SUPREME QUALITY. Only the very best materials are used in the manufacture of these dishes. Extreme care is taken in all of the different operations. Everything that high class materials, manufacturing skill, art and design can do, has been done to make this beautiful Dinnerware a Remarkable Bargain. All of the decorations; the initial, the wreath, the scroll of roses in natural colors, the gold edge, and the inner line of orange, are absolutely put on to stay. We guarantee against breakage in shipment. **Each piece is wrapped separately in tissue paper.**

Special 30th Anniversary
SALE PRICE ONLY $29.95

30 Days' Free Trial—*Easy Monthly Payments*

"I Will Trust You Gladly"
Spear of Pittsburgh

Only a short time ago this dinner set sold for $44.75 and without the Free Table Cloth and Napkins. You would have been satisfied to pay this price for the High Quality and Exquisite Design alone. To these points of excellence I have added these additional attractive features: The exclusiveness of your own Initial on every piece; the glorious, cheerful, lavish beauty of Six colors and Gold in the decorations; the outstanding and distinctively handsome big, wide, bright, gold handles. I have also added a daintily colored floral spray which is opposite the Initial design on each and every piece. I want to send you the complete set, 110 pieces, on 30 Days' Free Trial. I want you to use the dinnerware as if it were your own. If your satisfaction is not complete, return the set. I will refund your first payment and all freight charges. The trial will not cost you a penny. Be careful to state the Initial you desire. Order No. PA2940. Terms: $1.00 with order, $2.50 Monthly. Total Price, $29.95.

Nathaniel Spear
President

SPEAR & CO. DEPT. B-31 PITTSBURGH, PA.

HOME FURNISHERS FOR THE PEOPLE OF AMERICA

The 110 Pieces

12 Cups 12 Saucers
12 5¼-in. Dessert Dishes
12 6-in. Oatmeal Dishes
1 10½-in. Meat Platter
1 13½-in. Meat Platter
1 Sauce Boat
1 Sauce Boat Stand
1 Gravy Bowl
1 Cream Pitcher
1 6-in. Pickle Dish
1 7-in. Butter Dish
1 Covered Sugar Bowl (2 Pieces)
12 9¼-in. Dinner Plates
12 7¼-in. Pie or Lunch Plates
12 6¼-in. Bread and Butter Plates
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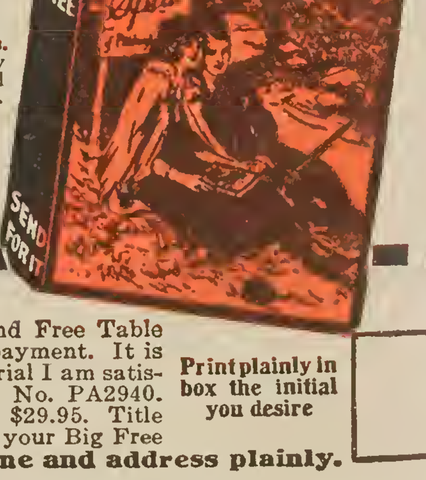

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VOL. 111 Founded 1842 No. 12

AMERICAN AGRICULTURIST

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The Relation of Lime to Farm Prosperity—By J. C. Conway

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American Agriculturist

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Volume 111 | For the Week Ending March 24, 1923 | Number 12

The Relation of Lime to Farm Prosperity

A Story of a Professor Who Would Talk Lime But Not Sell It

By J. C. CONWAY

IN the spring of 1911, I was able, by an unusual stroke of luck, to sell my farm, located in a hilly township of Northeastern Pennsylvania. Moving to the village I bought the stock and good will of a dealer in fertilizers and general farm supplies, and entered on what I had previously supposed to be the unobstructed career of a profiteering middleman. The stock on hand at the time of my purchase of the business was not of any great account, consisting mainly of a few shop-worn farm tools and perhaps five tons of commercial fertilizers of various mixtures and conditions of bag-rot and ossification. I soon found, also, that the good will of the trade was not to be seriously depended on, and although in the course of the eight years that followed I made a moderate success, it was done at the cost of as stubborn a struggle as was ever carried on with a mortgage-encumbered farm.

The Retailers Problem Hits Home

The experience has given me an understanding of the problems and the economic value of the retail merchant which differs from the notions I entertained previous to engaging in this enterprise. I will say that I honestly believe Credit to be the great curse of rural business. I am strongly of the opinion that it would be best for all concerned if it were made impossible for any man to buy a load of feed or a ton of fertilizer on any other terms than cash on the spot.

In my first season at the work I was considerably interested in the fertilizer trade, and soon discovered that my business in this line could only be increased by actual farm-to-farm canvassing and the securing of signed orders. In connection with this I could, if I had the ability, write a long and interesting book on the various schemes and complicated tactics employed in persuading the farmer to actually sign his John Hancock at the bottom of an order sheet. His attitude in regard to the matter was one of extreme procrastination. He would "drop in and see me later," or promise to "come down in a few days," when he had figured out just what he wanted.

Promises Mean Nothing

Very early in the game I learned to discount these promises heavily, because as a matter of fact if I went away without closing a deal I would not, in 90 cases out of a 100, ever hear from my friend again in regard to the subject. This was not because the average farmer's word was of little value. It was simply a part of an interesting and entirely legitimate game, entitled "getting rid of an agent."

There was one agent-routing argument that I found especially hard to get around. "No, I don't want any phosphate," said the farmer, "but if you would come along selling lime I'd have an order for you. Lime is what we need." This statement blocked my path again and again, and being of an accomodating and adaptive turn of mind I resolved that if they wanted lime, lime I would sell them. Accordingly I began an exhaustive correspondence—at least it was exhaustive to me—with lime-producing companies, agricultural colleges and experiment stations, in a search for the true Philospher's Stone of soil-sweetening. These literary efforts were carried on intermittently through a period of several years, and supplemented by personal observation of the effects of various kinds of lime on the soils of my section, and eventually I came to consider myself something of an expert. When I sold out in 1919, I had built up a trade averaging better than 100 carloads per year, shipped into my own and three or four nearby stations, and consisting almost exclusively of ground limestone.

Easier Than by Hand, and More Uniform

I think it was in the second season of my canvassing that a lime company with which I had corresponded, sent to my assistance an expert agronomist. This old gentleman was, as a matter of fact, an agricultural college professor whom they had engaged during his summer vacation to talk lime to the farmers. The old agronomist was not much of a salesman; in fact I think he had stipulated with the company that his mission was to be only that of an educator, but he certainly was the ablest assistant I ever traveled with.

A Salesman of a Different School

In his little lectures he removed the subject entirely from the plane of commercialism, and elevated it to that of soil improvement and farm prosperity. He rode with me from early morning to late evening for three days, and in that time I took orders for better than twenty carloads of lime for subsequent delivery. Professor Jones, as we will call him, did the talking, and when he had finished I was right on hand with the order book. I will attempt to give a conversation between him and a farmer, touching upon the most-discussed points of the lime question:

"Good morning," I used to say. "This is Professor Jones, who works for the so- and-so lime company."

"What kind of lime are you selling?" asked the farmer.

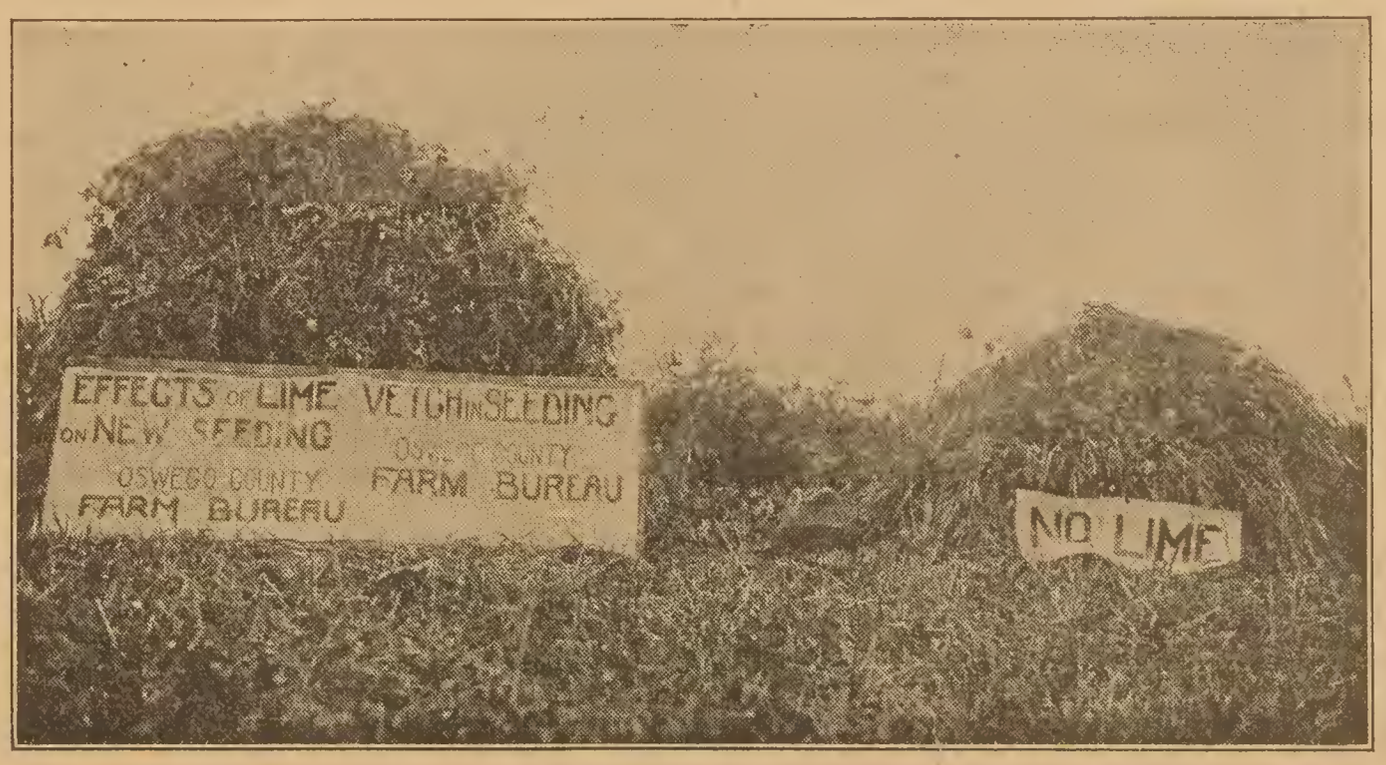
"Not any kind," replied the professor. "I am merely explaining its value. However if you wish to purchase some, Mr. Conway will, I believe, take your order for whatever you wish. Have you used any?"

"Yes, I put half a ton on two acres of seeding last year. It didn't show much results."

"Lime is Not Fertilizer"

"Many farmers," said the professor, "make the mistake of thinking that lime is a fertilizer, and should be used in amounts approximating those of a fertilizer application. It is a soil element, and where deficient should be returned to the soil at the rate of one to two tons per acre, in the ground limestone or carbonate form, or quantities of equal lime value in the burnt or oxide form. On lands as badly soured down

(*Continued on page 269*)



Lime Did It

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

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VOL. 111 March 24, 1923 NO. 12

An Eastern Apple Show

PLANS are being made to hold a great Eastern Apple Exposition and Fruit Show at the Grand Central Palace, New York City, from November 3 to 10, 1923. The Show will be representative of the fruit products of all of the Eastern States, southward to North Carolina, and will have the backing of fruit producers and their organizations, of the State Agricultural Departments, and of fruit handlers. All of those, in fact, interested in growing, transporting and marketing the products of one of agriculture's greatest industries are expected to help make a really great exhibit.

Such a show will do much to advertise the fine quality of Eastern grown apples and other fruit products. Although Western producers' fruit is of no better quality, and although they are much farther from the great markets, yet they have been able because of better advertising and marketing to outsell the Eastern producers who have the best markets near at hand. Therefore, we think this exposition is a step in the right direction, and we hope that it will receive full and unqualified support from everybody concerned.

Lime Is Fundamental

WE once put in several weary days one summer mowing clover with a scythe in a field that was so filled with stumps and stones that a mowing machine could not be used. Never before, or since, have we seen clover that grew as rank and as high as it did on that piece of virgin soil. Yet to-day, twenty years afterwards, we will wager that there is no clover growing there, for such has been the history of nearly all hill lands of the East that were not underlaid with limestone.

Our forefathers in these Eastern States grew stands of clover almost without effort. The fertility of the land had not been exhausted and most of it had a little trace of limestone in it. But later our fathers found that for some reason which they did not understand, it was very difficult to get and maintain a stand of clover on the hill, or even the valley, farms of the East.

How clovers have been brought back to stay by using lime is well told in the feature story by Mr. Conway in this issue. Don't miss it.

Many times it is lime and not fertilizer that the soil needs, and many times the fertilizer is much more effective if the soil has had its proper feeding of lime. Limestone is the wizard of agriculture. We believe the practice of applying it is fundamental to our Eastern farming, for with it old soils have been made to renew their youth and blossom again like a rose, and with it a new agriculture can be built with the clover and other legumes grown again as our forefathers grew them when the soil was young.

Committee To Find TB Control Plan

THIS paper announced last week the appointment by the New York State Farm Bureau Federation of a competent committee to make a study of different methods for handling tuberculosis among dairy cattle and to make recommendations for more rapid eradication of the great scourge.

The committee has already begun its work, and one of the first things it did was to draft a resolution calling upon the Legislature for adequate appropriations to finance future eradication work. We were particularly pleased to see this resolution because American Agriculturist had already taken the position that appropriations for eradiction work should be made in advance and not come dragging along months after the obligations by the State had been incurred.

Although a tremendous amount of work has been done toward controlling tuberculosis in dairy cattle, yet a start toward the great task has only been made, and there is much difference of opinion as to just what is the best method of procedure.

The committee appointed is made up of men of long practical and first hand experience with the tuberculosis problem. They have a big job cut out for them, but if they can outline a plan, and we think they can, that will hasten the control of this dreaded disease, dairymen will be rendered an immeasurable service.

The Spring Light

IF farming does not pay why do farmers stay at it? There are many answers to this question so often asked by city folks. The basis of the question is wrong in the first place, because the great trend of population from country to city in the last few years shows that farmers are not staying in the business. But the chief reason why many farm people do stay on year after year and from generation to generation in the hard business of getting an existence from the soil is the compensations that come to country people that money cannot buy. It is possible to make a home on the land, the like of which cannot be maintained in the city. A farm is the best place in the world to grow children. Then, there are rewards hard to describe and not often talked about, but nevertheless enjoyed, that those who live in the country constantly get from nature and the passing seasons.

There is for instance that feeling of coming spring that only a farmer can appreciate which comes when the days begin to grow longer in the winter time. To be sure it is true that "when the days begin to lengthen the cold begins to strengthen," but even so the lengthening days arouses that intangible something in every countryman, which makes "hope spring eternal in the human heart" and makes us all impatient to get busy with the spring work in the hope that in spite of experiences of past years, *this year* is going to be the year of years when things are going to be different and better.

So, along about February or March the wind howls across the bleak hills, piling the snow in drifts so large that it would seem they will never melt. The trees are leafless and apparently dead. The brooks are frozen and the birds are gone. But all the same at the close of day there comes a few moments of promise when the "spring light" shows in the western sky, telling us that the sun is on its way, that the snow will soon be gone and that the miracle of the annual resurrection is soon to come, transforming a cheerless countryside into a blooming paradise.

Immigration and Our Increase

THE New York "Sun" says that the day is coming when humanity will be as crowded for elbow room in America as it now is in Europe. In 1920 the population of continental United States was 105 million. Three years later it was 110 million. "The elimination of famine, the conquest of disease, the increase of health measures, and the other victories of medicine mean benefits to this generation, but may become old men of the sea a generation from to-day.

Without doubt the "Sun" is right. Yet, in spite of these facts, there are many who insist on throwing the immigration gates wide open, thereby hastening the day when the further progress of the country will be greatly impeded by overpopulation.

A Home or a Place to Stay

A CORRESPONDENT writes that in a trip of some length through farming sections he is impressed with the bleak and barren surroundings of many farmhouses. He says further that a little time and attention given to the planting of trees, to the proper placing of some quick-growing shrubbery, and to a good lawn would make the difference between just a place to stay and a real home. In speaking on the same subject, another farmer recently stated that farmers would like to do such things, but they did not have time because they were too busy trying to make a living.

There is, of course, still much opportunity for improving and beautifying the farmstead, but when we look back over twenty-five years and notice the changes that have taken place we think that farmers have come along this way pretty fast. We remember one valley twenty-five years ago where a mowed lawn, a cared-for bush or shrub or a pretty flower bed was something of a curiosity. To-day there is hardly a farm in that valley that does not have a pretty lawn, with prettily arranged flowers and shrubbery, and well-painted buildings.

On the other hand, as one gets back a little from the main-traveled roads, many, if not a majority, of the farmsteads are bleak and cheerless. There are also fairly prosperous farm communities where little attention has been given to improving appearances. It seems to be something where good example is especially powerful for two or three farmers in a neighborhood who start to improve their surroundings are soon followed by most of their neighbors.

As to getting the time for work of this kind, it does not take much, and it greatly increases the value of the property. Besides, we think most farmers would be better off if they took just a little less time from working to crowd a surplus market to the limit and just a little more time to do some of the things that would make life more pleasant.

Those Were the Good Old Days

But It Is About Time Some of the Younger Generation Spoke Up

AFTER reading the article in the February 3 issue, by Alexander Legge, "Eighty Years With Farm Machinery," I have been prompted to write an article very closely related, and yet along a different line.

I wish I could take the reader back to the rural home of 75 to 100 years ago. The majority of your readers will hardly believe that there has been the change in 75 years that has actually come to pass. I can write with authority because I can remember a grandmother who was born in 1785 and died in 1876. We have living close beside us, a lady who was 83 years old last October, who has told us much about the home of her childhood days.

I will not dare try to mention more than a few changes, for it would make too long an article.

The lady I have mentioned can remember well when the first cook stove came into their community. Neighbors went for miles to see that cook stove and soon another and then another bought a cook stove. I wonder how many would be able to get along without the match, and yet that is what our grandmothers and some of our mothers yet living had to do. The fire on the hearth had to be carefully banked and, if in spite of care, the coals all burned out, it required either a trip to a neighbor to get one of his coals, or else resort to the steel and flint.

A few of your readers may remember the flint-lock gun, and some may remember seeing old smokers who lit their pipes with the steel and flint and punk. Punk was rather slow in getting a blaze, so many would use gun powder.

Like the Oil Stove of To-day

And right here I must mention again the lady I have already mentioned. When a small baby, her mother placed her on the floor, took the powder horn and poured a little powder on the floor, laid the powder horn down, not far enough away, placed paper beside the little pile of powder and struck her steel against the flint so as to throw a spark into the gun powder. The fire spit out to the powder horn, which flew against the side of the room and bounded from there to the baby, covering her with fire. The mother had her arms badly burned in putting out the fire and the baby was not expected to live. Even after getting better, it was thought she would be blind; but though she carries marks of the burning, her eyes were not injured.

Though no one ever thought of, or even heard of, buying ready-made clothing, there was no sewing machine in the home of that period. And furthermore, not much of the cloth for clothes was bought, but flax was sowed and, when ripe, was pulled and bunched. When dry enough, the seed was flailed off and the bunches then spread out to be watered by the rains, or if rains were not plentiful enough, water had to be carried on to it until the boon or core became brittle, when it had to be broken up into little bits over the breakers.

These bits of stem had to be skutched and hackled out of the fiber, which had to be hackled and hackled until the finest, known as tow, was spun by the mother into fine thread on the spinning wheel, which was found in nearly every home. This was then taken to some one who had a loom and woven into cloth for dresses, shirts, pants, bedding, etc. The coarser fiber was spun into coarser thread and used in coarser cloth and carpet fillings, etc. This, of course, did not supply all the cloth. Sheep were raised and flannels, stocking yarn and carpet chain made from the wool. Almost every housewife, with her daughters, when she had any, made all the stockings for the family. And this just reminds me that my father made all the shoes for his family for many years.

I have had to omit many details in the foregoing, but I have written enough to show the reader that there were no idle days for the home makers of 75 or 100 years ago. Do you wonder that among such a busy population, there was not found the flagrant evils that exist to-day? True, none of us wish to go back to the inconveniences of those years, but oh, how we do long for the pure Christian home so typical of those simple busy folk. Of all the needs of a trouble-racked world, there is none so great as the need of true Christian homes.—D. P. HECKMAN, Newville, Pa.

Ministers of Bygone Days

OWING to the scarcity of labor, and the vast amount of work to be done at every farm home, I find less time to read than in former years. Consequently, I have thought it best to discontinue some of my papers. Never have I entertained a similar thought in regard to your paper. Its pages are filled with interesting matter, written by those who know what to say and how to say it. Therefore, I can only say: "Let 'er come!"

The article, "Where Have Men Like This Gone", by Jared Van Wagenen, Jr., was very interesting. He is certainly one of the best of writers. We shall not soon forget the earnestness, the consecrated devotion, and untiring efforts of the many ministers of bygone days. How they toiled and plodded through deep snows and freezing weather to the little school house miles away among the hills. Here, revivals were held, night after night, with good results which will never be forgotten.

We who have already lived the three score years, well remember that half a century ago, in most families there were from four to eight children. These children, early in life, learned to share not only the joys, but all their sorrows and troubles with each other. The discipline was good. The care which came to them early in life helped to give them strength of character and thoughtfulness for one another. Then there were boys for the ministry, boys for lawyers, some for doctors, and some for blacksmiths. When mother was sick and unable to care for her large family, if no girls of suitable age were there, one large boy could drive over to the home of another farmer and bring in a strong girl, who was willing to come and help out with the housework for a time, for a fair wage per week.

American people have sadly neglected the child crop for many years. As an example: My grandparents raised thirteen children. My parents raised six. Wife and I have raised three. The next generation has one or none at all. Is it any wonder that there is no one to fill the useful positions in life any longer?

Other Good Preachers of Bygone Days

One good old pastor, the Rev. L. R. Swinney, of De Ruyter, N. Y., had gone to bed one very cold night, but he kept thinking of a poor family living at some distance. So he dressed and went to the home of this family, taking a bed quilt for them that he might know that they were comfortable. Another good preacher, the Rev. J. M. Todd, preached for our people at Brookfield for 30 years. He finally said he was not weary of the work, but was weary in it. His was a life of kindness and thoughtfulness for others, being entirely free from hatred and sarcasm.

Mighty good man I remember was the Rev. W. C. Byrer of Unadilla Forks. He used to come over the hill and preach to us sometimes. As an example of how we should live, he said: "There were two farmers who were brothers, living side by side. Both were poor men. There came a year when crops were very poor. One man was thinking of his brother and his large family and wondering how he would get through the coming winter. So he said to himself, 'Now to-night I'll go down to the wheat field and put some of my shocks of grain over the fence in my brother's field, then when he comes to draw home his grain, he will have a little more.' At the same time, the other farmer was thinking of his brother in the same way. So these two men met down in the field, just at dusk, each trying to put some of his wheat over the fence in his brother's field. In grateful memory of these beloved and consecrated men of God, who have long since gone to a just reward, let us reverently say:

Tenderly, tearfully lay them away,
To them comes no anguish,
No cold bitter day.

No hatred, no envy,
No strife and no sin,
Their present condition
We all, yet, must win.

For the friends we once had
Who have passed from our view,
For the deeds they have done
For the lessons they knew.

We will ever give thanks,
And while here humbly bow,
Trusting all will be clear
That we question just now.

—L. P. BURDICK, Brookfield, N. Y.

A Boost For Wayne County

I THINK that the records show that Wayne County is the banner county for long term subscribers of any county in the State, also for winning the first prize at the New York State Fair for the best display of fruit of any county in the State in 1922, which I think was through the efforts of L. J. Sweezey, President, and E. R. Wagner, Manager, of the Wayne County Farm Bureau, which looked after the spraying, sending out letters to all of the members what to use and when to spray to get the best results. Farmers are busy at present who have timber lots, getting bolts cut for crates. Celery takes a great many crates each year as they are never used but once, and most of the crate factories are kept busy making crates for the muck farmers as most of them use a great many crates.

Years ago before there was so much under cultivation, Wayne County grew and distilled about all of the peppermint oil in the United States or the world, and it was all sold to two buyers at Lyons and shipped all over the world. In those days a farmer used to work all summer, and in the fall draw away all that he raised for a money crop which was mint oil in a democrat wagon at one load to Lyons and bring back several hundred dollars. Since the days of license when barley was used for malting, some farmers grew barley for a money crop, but barley is not raised now much and only for feed. Red beans are now raised mostly by all the farmers on grain farms as a money crop and the town of Marion is said by all of the buyers to produce the best beans raised in Wayne County.

Marion is an inland town and all of the produce bought years ago was beans and dried apples. They were then drawn by

(*Continued on page* 273)

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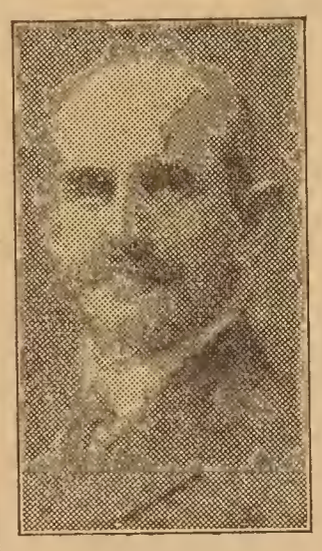
I Visit Two Unusual Farms

Two Ways in Livestock Management in the East

By J. VAN WAGENEN, JR.

DURING Farmers' Week at Ithaca, late one cold, blustery afternoon, I made a little visit to the farm and herd of H. E. Babcock, located in the Inlet Valley, three miles south of Ithaca. I remember calling upon his father a number of years ago, when he was a dairyman and Guernsey breeder in Chenango County. Since then the son has held a good many jobs, and made good in all of them, including Farm Bureau Manager, State Leader of Farm Bureaus, Professor of Farm Management at the New York State College of Agriculture, and now the head of the G. L. E. Exchange. But after all, I am inclined to believe that his farming is his most noteworthy achievement. By the way, it is surprising how many of the Professors in our State College are owning and working land as well. They will tell you that they are doing "a little farming on the side." Possibly some of them are farming as a business and "Professing" on the side. In any case it ought to be a source of satisfaction to us that where you find a teacher of agriculture running a farm he is usually doing a pretty good job at it. Around Ithaca the woods are full of these Farmer-Professors.



J. VAN WAGENEN, JR.

No "One Best Breed" Policy

MR. BABCOCK is surely not hidebound or narrow-minded in his choice of a breed. In one barn where were 18 "black-and-whites" that were skillfully cared for and doing splendid work, while in another barn were a string of fawn-and-white registered Guernsey beauties that in average daily production were exceeding any stable of Channel Island cattle that I ever saw."

Remember that this farm does high-pressure dairying, and the condition of the cattle and the records being made demonstrate that there is being exercised care and skill that leave almost nothing to be desired. In the old days this farm grew tobacco—an unusual crop in our State which is now confined to two limited areas—and part of one of the tobacco barns has been utilized as a big, roomy yard for the young stock, where they run loose together. Now, I do not mean that they were "roughing it" in the usual sense.

A Sound Policy

AS a matter of fact, they had plenty of good alfalfa hay with a liberal grain ration and abundance of bedding, and they were bright-eyed and full of pep. But the building made no pretense of being tight or warm. It seemed to me so much better than standing in stanchions in a close, stuffy stable. Cattle seem to adapt themselves pretty quickly to their environment, and the yearling running half in the open thrives and grows thick-haired and lusty. But she will not look as slick as the same animal confined in a barn where it never freezes.

I believe that this idea of giving calves and yearlings their freedom just as long as possible is sound. Our grandfathers (and some few men even yet) thought that the open barnyard was the best place for a cow during at least the daylight hours. Of recent years some of us, half as a matter of better care and half as a measure of convenience, have swung to the opposite extreme, and it is at least debateable if the results have been wholly good. We have a line of cows at Hillside Farm that stand in the same stalls from November to May. Probably it is true that every time you let a cow loose you lose a little milk. On the other hand, I sometimes get a bit afraid that in the long run there may be danger in this continuous stabling, especially along the line of irregularity in breeding and calves that are not as strong at birth as we could wish. This much at least is true. The cow which is tied in a stanchion for six months at a stretch is making or being compelled to make a most violent change from her ancestral habit.

Cornell students whose memory goes back to Prof. Roberts and the old red barn which stood on the ground now occupied by Bailey Auditorium will remember the covered barnyard, with the big water trough in the center where the milking herd took their ease during the daytime. The system was rather expensive for two reasons. The cost of a roof to shelter a good-sized herd is a big item in construction expense, and it certainly did require a tremendous amount of bedding to keep it dry and clean. This last fact would limit its use to those farms where a large surplus of straw was produced. On the other hand, it was a perfectly ideal method so far as the saving of manure was concerned, and it did give the cows a chance to take exercise and comfort without the shivers. I think there was no one thing which Roberts did which was so distinctive and of which he was as proud as his "covered barnyard," and Babcock is using the same system for his young stuff.

Another interesting point that I noted is this: that in the feeding of those splendidly productive animals, silage does not have the overshadowing place that it does on many farms. It is true that the farm has silos, but if I understand the owner correctly, he does not deem silage an absolute essential for successful dairying. Silage seems to be one of the minor rather than the major constituent of his roughage ration. I think I quote him correctly in saying that if he did not have the silos on hand with the capital already invested in them, he hardly thinks he would now build them. This is somewhat unorthodox, not to say revolutionary doctrine, but I have been leaning that way a little myself, so I feel more comfortable and less like a heretic after hearing him say it.

A Noteworthy Feeding Practice

AN acre of ground in good silage corn has possibilities of cattle food production unapproached by any crop known to our State's agriculture unless it be alfalfa under the most favorable conditions; but, on the other hand, silage costs a lot of labor and real money from the time we begin to plow the sod until it is safely blown into the silo. The labor costs of producing and harvesting a crop of hay are relatively insignificant. I believe that Dr. Warren—the commanding figure in Farm Management at Cornell—says that in a general way it will cost twice as much to produce a unit of nutriment in silage, as in hay. Hay, then, is a cheaper, even if not as good a source of food supply. Then, too, do we know that early cut legume hay is not fully the equal of the best silage, even in palatability!

If these conclusions are sound, then there was never a better time than now—with rising labor costs and unsatisfactory farm prices—to lay a little more emphasis on the clover meadows and let up a bit on the corn areas. I ought to add that the Babcock farm grows alfalfa rather easily. If he was located in a river valley like some I know, where corn grows very easily but alfalfa is not at home, he would probably revise his statements.

A Very Different Farm Scheme

AND on another evening, with that fine, free-handed farm hospitality which I have so often enjoyed, a Cayuga County farmer insisted that we go home with him to supper, and later he would drive us to catch the train back to Auburn.

Cayuga County, by the way, with the single exception of Herkimer County, which has it beaten, is the queerest and worst-shaped county in the State. On the north it has a little stretch of the clean sand-and-pebble beach of big Lake Ontario, and it extends south 55 miles to Summer Hill, more than half

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way to the Pennsylvania line. In shape it suggests the barn planned by the city agriculturist, which was to be a half a mile long, but deciding that his finances were insufficient, he concluded to retain the original plan as to length, but to make it only ten feet wide. The county also takes in part of the Montezuma Marshes, the State's biggest swamp, famous for cat-tails and bullheads. Some of the county, especially the southern end, is just "fair" land, but around the city of Auburn is a large area which it seems to me compares favorably with the best of the beautiful "Finger Lake Region," and it was in this fat section that our genial host lived.

Now, I do not propose to describe this farm, for the winter twilight was already advancing out of the east when the heavy farm team drove into the yard. The fertility of a region is measured to a great extent by the size of the houses because rich land ultimately blossoms into big, imposing farm homes. This particular section has many big farm houses, and this was one of the biggest. In fact, the Madam was bewailing its size and the amount of work necesary to care for it. Much of Western New York had a sunburst of prosperity almost a hundred years ago, when the Erie Canal (opened throughout its length in 1825) meant what was then deemed swift and cheap transportation to tidewater. Moreover, there was no Mississippi Valley at that time to flood the markets of the world.

A Corn-Belt Farm in New York

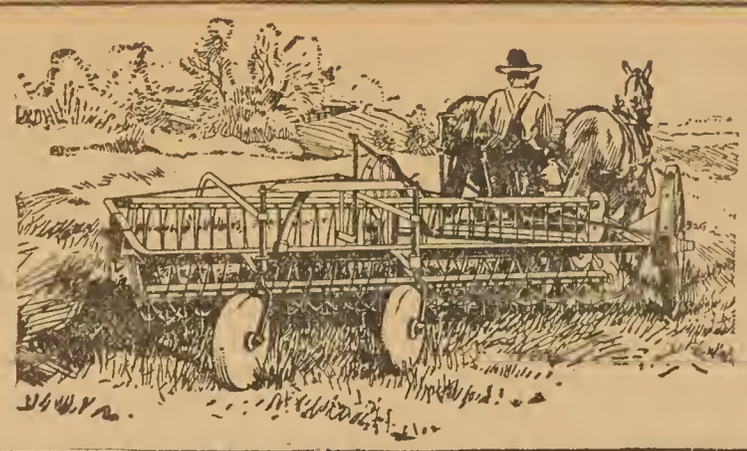
THIS particular farm has wonderfully good land — gently rolling — most of us Hill Farmers would call it very level. I notice that whether land is level or hilly depends in a great measure upon where you have been brought up. It was land where it was little trouble to grow wheat, and corn, and clover, and alfalfa, and where any normal year filled the great barns and made towering stacks of straw outside. Certainly it was notable in one respect because it was really a Corn Belt farm in New York State.

There were the great barns—bigger, probably, than the westerner would have built. There was a tremendous stack of wheat straw in the barnyard. There were the shotes and brood-sows —47 of them, he told me—not cooped up in tiny pens after our foolish eastern custom, but wandering around the barnyard among the cattle. There were draft horses in the stalls, and, most distinctive of all, there was a herd of Polled Angus cattle, fellowshipping with the hogs and burrowing into the strawstack—every one of them as black as a crow, and, except to the eyes of the master who cared for them, as alike as two peas from the same pod. O yes, I almost forgot to say that there were two or three Holstein cows, too—a sort of left-over from a one-time somewhat numerous herd. The owner told me that these black-and-whites were the best-fed animals on the farm. They were in just nice condition—nothing more—but all the Angus to the eyes of a dairyman were "hog fat," but probably they did not appear that way to a man accustomed to handling beef cattle and to seeing animals that were really fleshy, according to show-ring standards. It is surely true that in their ability to make and retain fat easily, the beef breeds and the dairy breeds are very far apart.

Beef Worth Raising

IT happened that a "baby-beef"—the real article, not a skinny grasser calf—had been killed the day before, and the carcass still hung in the barn to chill. I went out and took a look at it. Now, I am accustomed to seeing farm-butchered dairy cows, but I am not accustomed to seeing meat like that. The light did not shine through it, even on the skirt and flank. It was an Angus steer, something more than 400 days old, that had never been hungry, and its dressed weight was quite a little more than a pound for every day of its life. I have no doubt that the folks who got the steaks from that carcass were able to cut them with a fork without trouble. It represents about the last word in tender, juicy beef. It was sold to an Auburn butcher for 15 cents per pound, a very good price as the farmer thinks of beef, and yet less than it was worth as compared with the

(*Continued on page 275*)



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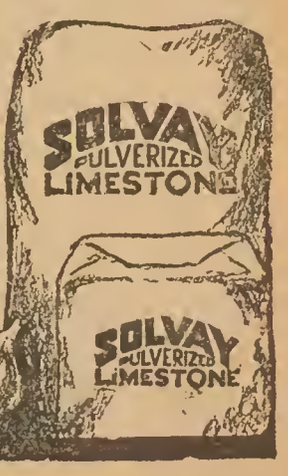

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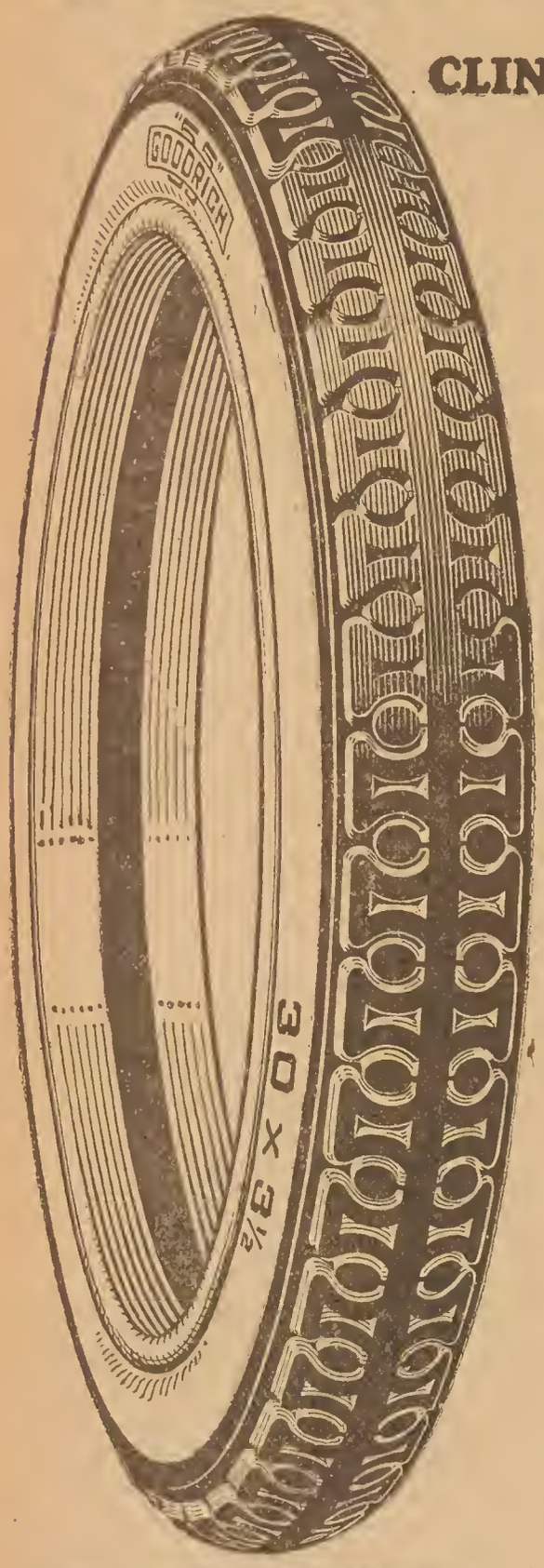

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How Much Shall We Apply?

A Review of the New Jersey Potato Fertilizer Tests

By A. W. BLAIR

NEW JERSEY is now using close to $5,000,000 worth of commercial fertilizers annually. Probably about one-half of this is spent for potato fertilizers. With the potato industry of the State demoralized as it is to-day, farmers are examining every phase of the question in a way that they have never done before. This keen interest on the part of the farmer makes the results of fertilizer tests, which have been continued for a period of years, of unusual importance. If they have been using too much fertilizer they want to know it, so that they may make a reduction in the amount and thus help to put the bank account on the right side of the balance sheet. If they have not been using enough they are equally anxious to know how much they should increase their treatments.

When Everything Is Going In

The experiment referred to was the outcome of a request, addressed to the Director of the Experiment Station early in 1917, from growers in the vicinity of Elmer and Woodstown, for more definite information as to the best sources of nitrogen for potato fertilizers.

Located on Typical Potato Soil

After careful consideration the experiment was located on the farm of J. Harry Kandle, about 4 miles south of Elmer. The soil is a typical Sassafras loam of good quality, and is thus representative of much of the potato land of the State. The plots were laid out and the first crop—cobblers— grown in 1917. Potatoes have been grown each season since, on the same plots, and for a given plot the fertilizer treatment has remained the same. In this way it has been possible to observe the residual as well as the initial effects of the fertilizers.

In addition to a study of the question with reference to the best sources of nitrogen, the experiment includes a trial of different amounts of a standard fertilizer—4-8-3—ranging from 800 to 2,800 pounds per acre, in 400-pound steps; a comparison of 1,600 pounds per acre of a 4-8-0, 4-8-3, 4-8-6, 4-8-10, and a 4-8-0 with an initial application of greensand and marl at the rate of 2½ tons to the acre. Four check plots (no fertilizer) and 5 check rows were distributed over the block. One plot receives 1,600 pounds of a 4-8-0 with an initial application of ground limestone at the rate of two tons per acre and one plot an initial application of ground limestone only.

The plots are 1/100 acre in size and the treatments are repeated, that is, plots 1 to 24 constitute one section and plots 25 to 48 another on which the fertilizer treatment is repeated. Fertilizers are applied annually at the time of planting potatoes. After the potatoes are dug, a green manure crop is seeded, usually wheat.

Source of Nitrogen Important

In the standard fertilizer one-fourth of the nitrogen is taken from nitrate of soda, one-fourth from ammonium sulfate and one-half from tankage. Acid phosphate is used as a source of phosphoric acid and muriate for the potash.

Certain plots receive the standard amount (1,600 pounds) of the 4-8-3 mixture with all the nitrogen obtained from (a) nitrate of soda (b) ammonium sulfate (c) fish and (d) tankage. Other plots receive the standard amount with one-half the nitrogen taken from nitrate of soda and the other half from one of the three other materials mentioned. Two plots receive a mixture like the standard with the exception that fish replaces the tankage.

The potatoes were graded into "primes" and "seconds," but total yields only are recorded in this report.

Referring first to the results with different sources of nitrogen the six-year averages — 1917-1922 inclusive — show the following yields per acre:

4-8-3	Bushels
1,600 lbs., all N from nitrate	249
1,600 lbs., all N from ammonium sulfate	214
1,600 lbs., all N from fish	246
1,600 lbs., all N from tankage	244

From these figures it will be noted that when all the nitrogen is taken from one source, the highest yield was with the nitrate of soda and the lowest with ammonium sulfate. However, in fairness to ammonium sulfate, it must be stated that the potatoes from these plots have been freer from scab, and thus of a higher marketable value per acre, than those from the nitrate of soda plots. The difference between the yield with fish and tankage is so slight as to leave the matter of choice with the individual.

When nitrogen was taken from two or more sources the average yields were as follows:

4-8-3	Bushels
1,600 lbs., half N from nitrate and half from ammonium sulfate	257
1,600 lbs., half N from nitrate and half from fish	259
1,600 lbs., half N from nitrate and half from tankage	259
1,600 lbs., one-fourth N from nitrate, one-fourth from ammonium sulfate and one-half from fish	244
1,600 lbs., one-fourth N from nitrate, one-fourth from ammonium sulfate and one-half from tankage (standard)	247

These figures indicate very clearly that it is a distinct advantage to have nitrogen from at least two sources. When ammonium sulfate is used in combination with nitrate of soda, the yield is 43 bushels in excess of the yield with all nitrogen from ammonium sulfate. The yields from a combination of nitrate and fish and nitrate and tankage give further proof of the equal value of the two organic materials. When the nitrate nitrogen is reduced to one-fourth of the total, the yields are distinctly less than when the nitrate supplies one-half of the total nitrogen.

The average yields per acre for the different amounts of the standard mixture, as compared with the check, were as follows:

	Bushels
Check	166
800 lbs. 4-8-3	214
1,200 lbs. 4-8-3	238
1,600 lbs. 4-8-3 (standard amount)	247
2,000 lbs. 4-8-3	259
2,400 lbs. 4-8-3	274
2,800 lbs. 4-8-3	276

In the light of these results, it does not take very much figuring to prove that fertilizers pay, as witness 48 bushels for 800 pounds of the 4-8-3 and 72 bushels for 1,200 pounds. It would require an economist, however, to arrive at the point of diminishing returns. This will be determined by the cost of labor, seed and fertilizer, and the selling price of the potatoes. Under some conditions it would undoubtedly pay to raise the application to 2,000 pounds, while under other conditions it would be most economical to stop at 1,200 to 1,600 pounds per acre. The increase in yield obtained by increasing the application from 2,400 to 2,800 pounds per acre is certainly not justified.

The Effect of Potash

The tests with the standard fertilizer modified to include different percentages of potash gave the following acre yields:

	Bushels
Check	166
1,600 lbs. 4-8-0	211
1,600 lbs. 4-8-3	247
1,600 lbs. 4-8-6	255
1,600 lbs. 4-8-10	259
1,600 lbs. 4-8-0 and marl	238

With 3 per cent of potash giving a six-year average increase of 36 bushels per acre over no potash, there is little

difficulty in arriving at the conclusion that potash pays. The eight-bushel increase gained by increasing the potash to 6 per cent would probably more than pay for the increase in cost under normal conditions. The point of diminishing returns probably lies close to 6 per cent. Certainly the four bushels gained by increasing the percentage from 6 to 10 would hardly pay for the trouble and expense even with potash at the present low price level.

The yields with marl have been good, although none has been applied since 1917. It should be pointed out, however, that a large percentage of the potatoes on the marled plots have been so scabby as to be unsaleable.

It is not entirely safe to draw general conclusions from a local experiment, but since this soil is typical of much of the potato soil found in this and other Coastal Plain sections, it seems safe to suggest that in a large majority of cases, with similar soil and climatic conditions, 1,200 to 2,000 pounds of a fertilizer analyzing 4 per cent nitrogen, 8 per cent phosphoric acid and 3 to 6 per cent potash, with the nitrogen derived from at least two sources, will come about as near giving the maximum returns for the investment as any that can be offered.

The work makes it quite clear that there is little need for using organic materials beyond the amounts required to give a good mechanical mixture, if nitrogen in this form is to continue to cost more than nitrogen in the form of nitrate of soda and sulfate of ammonia.

The Relation of Lime to Farm Prosperity

(*Continued from page* 263)

as I imagine those of this locality to be, two tons of ground rock will pay if you are able to buy it."

"I have read that half a ton of the burnt lime is equal to a ton of ground rock. Is that so?"

"In theory, yes, or approximately so. In practice, rarely, if ever. We will take, for example, 100 pounds of raw limerock, analyzing in theory an absolutely pure carbonate of lime, and burn it in a kiln. On removing the product from the furnace, we find that in passing through the process of burning it has thrown off weight to the amount of 44 pounds, leaving 56 pounds of calcium oxide, or, in plain English, burnt lime. The 44 pounds weight that has been lost consists not of moisture, as you might suppose, but of an elemental gas called carbon dioxide.

"Now, when our 56 pounds of burnt lime is removed from the furnace, it immediately begins to seek this affinity it has lost, and in passing through the processes of slackening it recovers every ounce of the lost element and becomes once more 100 pounds of calcium carbonate, or raw lime. It is only when it has returned to this carbonate form that it becomes available for soil sweetening.

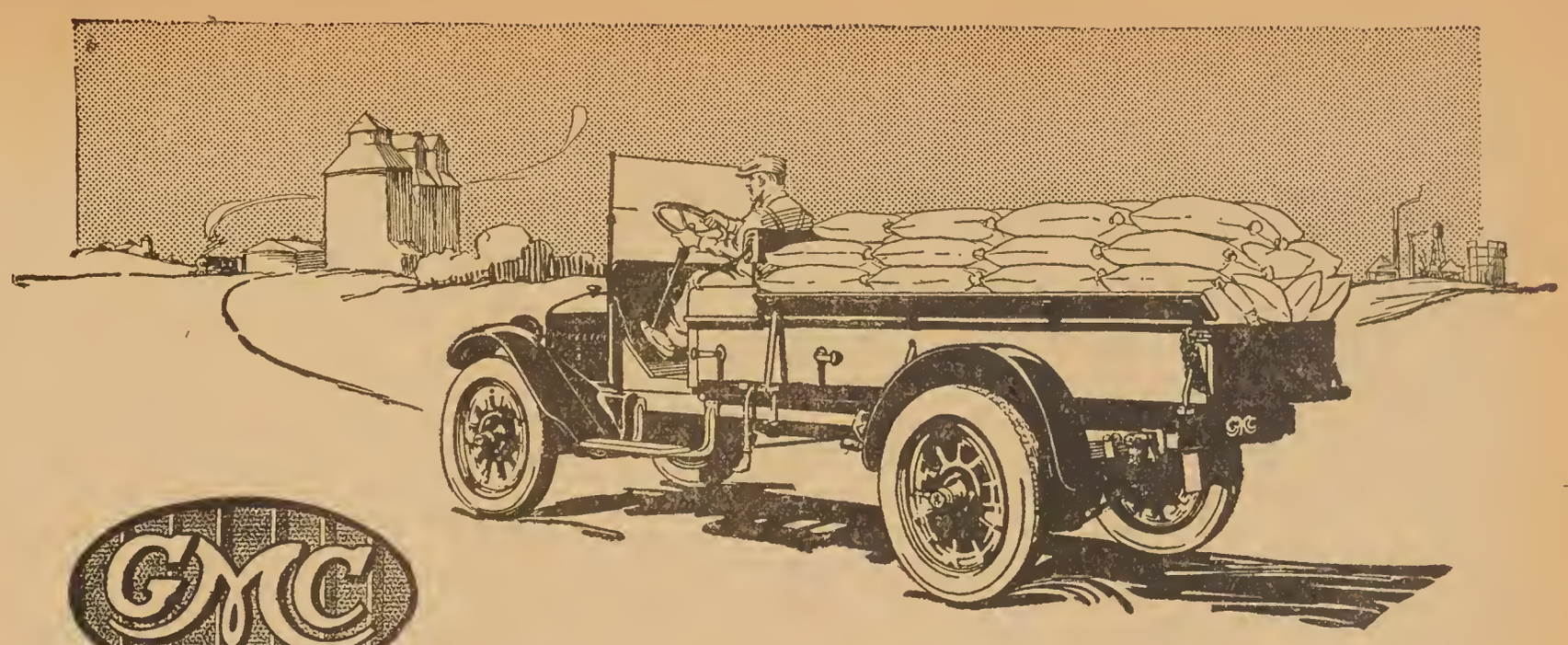
"Where we err in assuming that 56 pounds of burnt lime equal 100 pounds of raw lime is that we do not take into consideration the fact that the burnt product begins to seek its affinity, to take back lost weight, the moment it leaves the kiln. If it could be tightly confined in barrels, there would be no great action in a considerable period, but shipped loosely in box-cars, it is possible that the 56 pounds may become 60 or 70, or even more, by the time the farmer receives it as weighed out by the local dealer. Also, we must consider the possibility that quantities of the stone may not be well burned, and in too large chunks to be available as raw lime."

Which Form of Lime Is Best?

"Then you think the raw rock is best?"

"I would not make that statement. Either form is excellent when properly applied, and the whole of lime science as bearing on the right kind to use resolves itself into a simple question of where you can buy the most calcium carbonate, that is, available lime element, for the least money, taking into consideration the difficulties of hauling and spreading. If you are in a section where burnt lime is cheap and cheaply handled, use that form. If the mill price and freight rates on the ground rock are much lower than the other,

(*Continued on page* 270)



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A "Jim-Dandy" Truck
Model K-16, One Ton
$1295
Chassis only—at the factory

For general farm use, on hard roads or in rough fields, the Model K-16 one ton GMC provides more pulling power, more speed, and more economy than other trucks of the same capacity.

Moreover, this "Jim-Dandy" truck is built from truck parts exclusively—no passenger car parts used. Consequently it has the sturdiness and enduring performance that is demanded for hauling over all kinds of roads and in all kinds of weather.

The exclusive features of GMC construction, developed from more than ten years of successful truck building, have provided this truck with more continuous performance and lower operating and maintenance costs. Due to its advanced design there is not a single wearing part in this truck that cannot be replaced. Such refinements as Removable Cylinder Walls, Removable Valve Lifter Assemblies, Pressure Lubrication, and Instantaneous Governor action all give to this truck the dependability that is so vital in farm trucking.

In every detail of construction the Model K-16 has been built according to the most approved and most advanced practices.

Magneto ignition, electric lights and starter with conduit wiring entirely separate from the ignition wiring, radius rods, thermo-syphon cooling, oversized brake drums, interchangeable brake rods, complete instrument board, pressure chassis lubrication, cord tires—

All these are universally accepted as the best for motor truck use—all these are standard in this GMC.

Measured by any standard this one ton truck has no superiors—and its cost, considering its quality, is much lower.

Write for an illustrated booklet, "Motor Trucks on the Farm."

GMC Chassis list at factory as follows: One Ton, $1295; Two Ton, $2375; Three and One-half Ton, $3600; Five Ton, $3950; tax to be added

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Chewing, 5 pounds, $1.75; 10 pounds, $3.00; 20 pounds, $5.25. **Smoking**, 5 pounds, $1.25; 10 pounds, $2.00. Send no money. Pay when received. FARMERS' CO-OPERATIVE TOBACCO UNION, Paducah, Ky.

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Saved $56 "I have saved $56.00 on my order. I paid you 37c per rod and fence here no better is 93¾c." Chas. Rowe, Stella, Mo.

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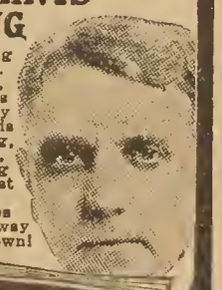

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February Pool Price $2.38

THE Dairymen's League Cooperative Association announces $2.38 a hundred as its gross pool price for the month of February. From this 7 cents per 100 lbs. are deducted by the Association for expenses of administration, and 10 cents a hundred are borrowed on Certificates of Indebtedness. This leaves a cash price to farmers for January milk of $2.21. This is the base price for milk containing 3 per cent butterfat in the 201-210-mile freight zone from New York City. The net price of $2.31 for February is 34c above the net price for February last year.

Prominent New York County Agents Resign

Charles Wille, manager of the Sullivan County Farm Bureau; Fred R. Walkley, county agent in Madison County, and H. F. Keyes, manager of the Schenectady County Farm Bureau, have resigned their positions to enter other fields of work. Mr. Walkley is going farming, Mr. Keyes is going into the real estate business, and Mr. Wille has accepted the management of the Karha Farms, near Parksville.

Mr. Wille is one of the most popular Farm Bureau men in the State, receiving widespread recognition for his work. In 1923 he was president of the New York State County Agents' Association, better known as the "Sod Busters." Mr. Wille planned and conducted the first blacksmith school ever held in New York State, and, perhaps, the entire country. The school was located in Liberty.

The Relation of Lime to Farm Prosperity

(*Continued from page* 269)

use ground rock. In general, limestone can be ground at less expense than it can be burned, but a long freight haul sometimes nullifies this grain. Try out an experiment of comparative cost and results on your own ground by using ground limestone on one plot, hydrate on a second and run-of-the-kiln burn lime on a third."

"What is the hydrate?" asked the farmer.

"It is a good grade of burnt lime which has passed through the process of water-slackening, coming theoretically from the 56 pounds weight of the fresh-burnt form up to 74 pounds of calcium hydrate. It has largely lost its caustic properties, and may be stored for some time in paper sacks. I believe that in its commercial form it has been hydrated by forcing steam through it. It is largely used by masons, but, most unfortunately, its cost places it beyond the possibilities of any great use in agriculture."

Fineness Is a Factor

"What about this argument over fineness of grinding the raw rock?" inquired the farmer. "A fellow was along the other day selling ground limestone that was about as fine and white as flour. Asked a tremendous price for it, though."

"Fineness of grinding is a desirable quality," answered the professor, "but not so much of one as to admit of any great advance in the cost. I think we may say that limestone as now put out by the regular trade is ground sufficiently fine as to be available for all ordinary needs. As to the light color of the product shown you, it perhaps came from quarries of dolomitic limestone, so-called, which is not in practical use at all superior to our common blue limerock."

"What's the best way to apply lime?"

"Any way to get it on evenly, the proposition being to bring as many particles of lime into contact with as many particles of soil as possible. No spreading by hand equals the use of a limesower. As to the time of application, put it on as long in advance of the crop which is to benefit by it as circumstances will allow."

"Well," said the farmer, "that's a pretty good lecture, and you talk like a man who believes in what he says. What do you ask for lime, John?"

Whereupon I gave him prices on the different varieties, secured his order for a ton, or a carload, as his circumstances might dictate, and journeyed on with the old professor.

Proof Against Weather, Fire, Water, Lightning

We can furnish for immediate delivery any style of the Penco roofing or siding, painted or galvanized. Furnished in CORRUGATED, V-Crimp Standing Seam, Loxon Tile, etc., for roofing. Brick, Clapboard, Stone Face, Beaded, etc., for siding. There is a special Penco metal ceiling for every purpose.

Send for catalogue for Metal Lath, Corner Bead, Culverts, Bridge Arches, Gutters, Leaders, Ventilators, Skylights.

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110 First St., JERSEY CITY, N. J.
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Write your nearest office

Farm Account Book FREE

Write us, telling the size of the silo you own or intend to buy this year and mention the name and address of your implement dealer. We'll mail you free a 50-page Farmers' Record and Account Book.

This is arranged for the easy taking of farm and household inventories, and for the keeping of simple accounts which will show a complete and accurate financial condition of your year's business. It will help you find and stop the money leaks.

Ask also for Papec Catalog covering the *1923 improvements — at a lower price!* It shows why your dollars buy more in a Papec.

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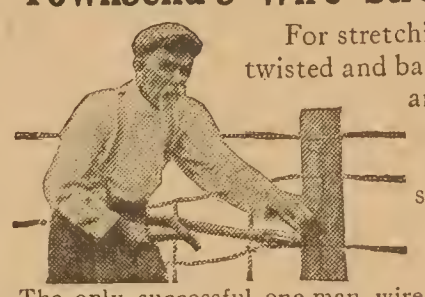
111 Main St., Shortsville, N. Y.
36 Distributing Houses enable Papec dealers to give prompt service

Townsend's Wire Stretcher



For stretching plain, twisted and barbed wire and an exceptional tool for stretching *woven wire.*

The only successful one-man wire stretcher made. Grips like a vise—won't slip—and loosens itself immediately when released. The person stretching the wire can also nail it to the post without assistance. If your dealer hasn't it write direct. Manufactured for 30 years by F. J. Townsend, Painted Post, New York

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As a member of one of our sales organizations, now being established in several states, you will have an unusual opportunity for making money.

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Previous selling experience not necessary—only a good head for business and a willingness to throw yourself whole-heartedly into the work. Most of our men make $200 to $250 per month right at the start, as we back them up with advertising; show them how to close prospects, and cooperate in every way.

If you want to establish yourself in a substantial business of your own, requiring only small capital, write us today for terms on exclusive territory and full particulars.

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$2.00 Per Roll

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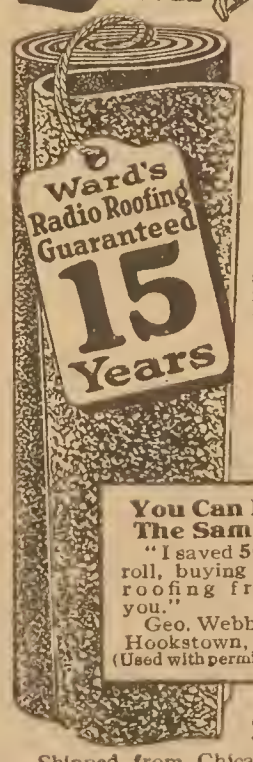

Do it in your spare time. No experience needed. Only hammer and jack knife required. Use our standard Radio Slate-Surfaced Roofing.

Approved by Fire Underwriters
Spark proof. Fire resisting. Better protection than wood shingles. Extra durable and not affected by heat or cold.

Best Standard Quality You Can Buy
Only $2.00 per roll (enough to cover 100 sq. ft.). For old or new roofs, or over old wood shingles.

Red or Green
Non-fading crushed slate surface beautifies as well as protects your home. Guaranteed for 15 years but should last longer.

You Can Do The Same!
"I saved 50c a roll, buying my roofing from you."
Geo. Webber, Hookstown, Pa.
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Send for FREE SAMPLES
It puts you under no obligation to buy. $2.00 per roll includes all nails and cement. (Add 8c if wanted with extra long nails.)

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Sirs: Send me without charge (1) sample Railway Mail Clerk Examination questions; (2) Tell me how I can get a U. S. Government job; (3) Send list of Government jobs obtainable.

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Fight Daylight Saving

THE daylight saving bugaboo is not dead in New Jersey, and the issue will again be up in another few weeks. The intention of cities in the northern part of the State to go into the new time schedule, promises the same inconvenience and loss experienced in recent years, to those who use the markets of New York City and New Jersey cities in the Metropolitan area. Philadelphia will go upon daylight saving on April 29, unless the present ordinance to that effect is repealed in the coming month.

The organized farm groups of South Jersey are planning active opposition to the change from standard time, which greatly interferes with their working conditions. The New Jersey Federation of County Boards of Agriculture has the ultimate abolition of daylight saving as one of its planks, which the New Jersey State Grange has continually voiced its disapproval. There was no controversy over daylight saving during the current session of the New Jersey Legislature. Pressure of the dairymen in northern counties of the State has brought about a certain reciprocity with the railroads, and the milk producers now understand that some of the milk trains will be run on schedules which allow collection of milk according to sun-time.

Here and There in the Counties

The warm days of early March were improved by South Jersey farmers, who started plowing on such land as was not too wet. The snows and rains which immediately followed, put a stop to the field work, although mid-March held better promise for early outside work. Throughout most of New Jersey, however, the ground is still heavy with moisture and frost, the latter penetrating farther than in recent winters.

In Salem County, onion growers are preparing for their usual acreage, according to early estimates. Onion sets are being received in quantity, particularly around Cedarville, N. J., which is in the heart of the biggest onion producing center in New Jersey. It is the practice of growers in this territory to purchase practically all of their sets, except on the occasional farms where irrigation has been installed. Experience shows that the weather is usually too dry in this section at the time when the sets should be fit for transplanting, and home growing of the onion sets is seldom accomplished successfully. The Salem County growers market their crop immediately after harvest, few onions being stored for the late fall and winter markets.

From a survey of the hay situation in Burlington County, the County Agent's office found that 202 farmers in that county had 2,629 tons of hay for sale and that 474 tons were needed for feeding purposes. This indicated 200 cars of hay to be disposed of outside of the county. County Agent, Clarke W. Clemmer, used the survey to inform those in need of hay as to the location, amounts and kinds of hay available in their communities. This service of the County Board illustrates the practical way in which the farmers may be brought into touch with each other on products which they need to buy or sell. The farmers reach their own agreement upon terms of sale, using published market reports as the basis of prices and values.

Monmouth Co.—The Monmouth County Board of Agriculture through its county agent, Ellwood Douglass, reports several satisfactory strains of corn as the result of community corn variety demonstrations in the past few years. These demonstrations have been running on 25 farms. They show that the yellow dent corn, grown by J. P. Hulsart of Manasquan, is an all-round sort; good stalk, good depth of kernel, medium to small cob and heavy yielder. It is adapted to most corn soils in the county. D. D. Solomon of Freehold, has a white, smooth corn adapted to questionable land as well as good corn ground. For white cap yellow dent, the W. H. Reid corn stands out as one of the highest in these community tests. It does well on a variety of soils, especially on the best corn land. Further tests will be conducted on the white corn grown by E. W. Winson, the yellow corn grown by J. W. Dobbins, Long's Champion Yellow and the yello[illegible] of I. B. VanDerveer.

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You Spent Good Money for Your Tractor

Keep It in Good Condition

Only correct lubrication can keep your tractor engine free from destructive wear—full-powered for every purpose. It needs an oil that retains its lubricating qualities at the high operating heat of tractor engines.

Socony Motor Oil keeps pistons, cylinders, valve mechanism and bearings continuously cushioned with a wear-preventing film of pure lubricant. Maintains full compression and gets from the fuel every usable ounce of power. Means small bills for repairs.

The Socony Motor Oil chart will tell you the correct grade for your tractor. Ask your dealer to show you, or write us direct.

Socony Gear Oil
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For satisfactory engine service and economy of operation, buy all your oils, greases and fuel under the *Socony Sign*.

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Peerless Fence
17¢ a Rod & Up
Now Sold Direct from Factory

Here's good news for farmers—the famous Peerless Fence can now be purchased direct from factory at

Lowest Prices Ever Quoted

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Long-Time Farm Loans

Buy Federal Farm Loan Bonds

This Bank has loaned to the farmers in New England, New York and New Jersey over $25,000,000 and has returned to them over $137,000 in dividends.

If you operate your own farm or intend to purchase a farm, we are prepared to make a long-time, easy-payment loan. Interest at 5½%. Payments semi-annually. Loans run for 33 years but can be paid at borrowers' option any time after 5 years. Local representative in every district.

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KILL THEM WITH MEPH

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MEPH is a valuable aid in the treatment of Contagious Abortion, Kills Lice, and cures Ringworm, Mange and Scab.

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MEPH heals the punctures made by Lice in the skin of the Hog, protecting them from further attack by other Parasites and by Contagious Disease.

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In the prevention of Cholera and in the treatment of Roup, Canker, Chickenpox, MEPH is unequaled. It kills Lice and Mites.

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Contains Soluble Sulphur that prevents infection and reinfection. Very effective in cleaning and spraying of Barns, Hen Houses, Coops, Stables, and keeping them Sanitary and free of Vermin. Mixes easily with whitewash, also with water.

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NO COST TO TRY MEPH

DON'T SEND A CENT. NOT A PENNY. Just say that you want to test this Dip. A Trial can will be shipped to you at once. If MEPH fail we will take the loss. If you find its all that it is represented to be — then, and only then, send us $2.50 for the gallon can which makes 50 to 100 gallons of dipping or spraying solution — better than you ever used. This liberal offer is good for a limited time, so mail your card TO-DAY.

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140 EGG Incubator Only $13.85

FREIGHT PAID East of the Rockies

Made of California Redwood, covered with galvanized iron, double walls, air space between, built to last for years; deep chick nursery, hot water heat, copper tanks. Shipped complete, set up, ready to run, freight paid. (2)

140 EGG INCUBATOR WITH BROODER $19.75
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260 EGG INCUBATOR, WITH BROODER 32.90
30 days' trial—money back if not O. K.—FREE Catalog
Ironclad IncubatorCo., Box 103 Racine, Wis.

The Cause of White Diarrhea

White Diarrhea is caused by the bacillus Bacterium Pullorum transmitted through the yolk. There is scarcely a hatch without some infected chicks. The germs multiply very rapidly and one infected chick may infect the entire brood. The germs can be killed by the use of preventives. Intestinal Antiseptics to kill the germs should be given as soon as the chicks are out of the shell. It is much easier to prevent than it is to cure.

How to Prevent White Diarrhea

Dear Sir: Last spring my first incubator chicks when but a few days old began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged. Finally, I sent 50c to the Walker Remedy Co., Dept. 433, Waterloo, Ia., for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We never lost a single chick after the first dose. We raised 700 thrifty, healthy chicks, where before we never raised more than 100 a year. I'd be glad indeed to have others know of this wonderful remedy. Ethel Rhoades, Shenandoah, Ia.

Don't Wait

Don't wait until White Diarrhea gets half or two-thirds your chicks. Don't let it get started. Be prepared. Write today. Let us prove to you that Walko will prevent White Diarrhea. Send 50c for box on our guarantee—money back if not satisfied.

WALKER REMEDY CO., Dept. 433, Waterloo, Ia.

WE PAY $200 MONTHLY SALARY,
furnish rig and expenses to introduce our guaranteed poultry and stock powders. **Bigler Company, X 507, Springfield, Illinois.**

"Work" and Poultry Profits

The Factor That Really Determines Success

By J. L. WOODBURY

IF I were asked what one factor counts most for success in poultry culture, my answer would be unhesitatingly in the above short word. Some given the same question my reply "proper quarters," others "suitable feed" and yet others, "birds of high-class breeding." But any of these, or all combined will be useless to the breeder who does not don overalls and jumper daily and supply the oil of "elbow grease" to the operations of his plant.

Hundreds go into the hen business annually, and usually out of it as well, with the idea that they can hold down their regular job, which perhaps calls for nine or ten hours of their time a day, and at the same time clean up $25 or $30 a month on the side with their hens. They seem to think that providing feed and water in the morning, and a second feed and bringing in the eggs at night constitutes about all the work necessary to keep things running profitably. Of course, they realize that chickens are to be raised in season, but raising chickens to the uninitiated, looks more like fun than otherwise. Unfortunately a great deal of poultry literature is being broadcasted at this time, tending to stimulate this illusion.

Now, we don't wish to discourage any one who thinks of going either wholly or in part into poultry. There is pleasure in it, there is money, possibly a great deal of money in it, but these are only for the man who is willing to put work into it. The man with a regular job can realize a pretty penny from hens as an adjunct, if he is willing to devote the most of his spare time to his birds and doesn't have more than he can look after thoroughly. But if he starts in with the idea that hens will pretty much look after themselves, he is doomed to failure in proportion to the magnitude of his enterprise. One might about as well think of making a success with a saw mill by starting it up in the morning and shutting it down at night, with two or three brief visits to see things were going in the course of the day.

We know of instances where a man and wife were both holding down good jobs and making a generous sum with a backyard plant besides. But they were both interested in the business and not afraid to rise early in the morning to get the chicks out of the brooders, or to sit up late at night to dress off birds for market. They didn't put in much time automobiling before and after hours, but found their chief diversion around their little plant.

With tending the incubators, keeping the brooders clean, preparing the different feeds and water, sowing green stuff, moving fences to afford fresh ground, catching and shipping broilers, cleaning and packing eggs for market, providing shade in summer and making all snug and tight in winter, cleaning up filth and removing droppings, fighting lice and mites (of itself no small job) guarding against rats, cats, hawks and other vermin—with looking after these and manifold other duties, they were kept pretty busy. But they actually enjoyed the work. And so everyone must learn to do—work hard and find pleasure in it if they would succeed with poultry.

It is just as important for the poultryman to put effort into the management of his winter flock as it is for the dairymen to give the herd added attention

BASIS FOR CUSTOM HATCHING

I am an old subscriber to your paper, and I wish you would please tell me of a basis for hatching eggs in my incubator for my neighbors. My neighbors have asked what it is worth to hatch some eggs for them. A wants to furnish his own eggs, B wants to know what it is worth per chick to hatch them, or should B be charged per egg for incubation?—Mrs. M. J. P., New York.

Various methods are used to arrive to a basis for custom hatching in this way. Perhaps the most general method is a specified charge per 100 eggs and a bonus per 100 chicks which hatch. The owner of the incubator is in no way responsible for the fertility or condition of the eggs as he received them and if the payment was entirely upon the basis of chicks hatched, he would be placed at a decided disadvantage in case the eggs were not from fertile, vigorous stock.

The cost to the owner is approximately the same whether the chicks hatch 30 per cent or 85 per cent. Therefore, the charge should be based largely upon the number of eggs placed in the incubator. However, so as to insure the best of care during the hatch and to encourage the best efforts on the part of the incubator operator, a small bonus per 100 chicks will insure fairness and conscientiousness on the part of the one who is conducting the hatch. This method is very fair to both sides when the customer furnishes sterile eggs. The incubator owner however, is paid for his trouble and at the same time if the chicks do not hatch, the customer does not pay so much as he would if a good hatch resulted.

Conditions vary, but for small scale custom hatching, a charge of $1.50 per 100 eggs for incubation and an additional charge of $1.50 for each 100 chicks hatched is perhaps a fair rate. Thus, if 300 eggs were set and the hatch was 200 chicks, the cost to the customer would be $7.50 or a net cost per chick to the customer, of 3¾ cents a piece.

One farmer in Pennsylvania has built up quite a trade among his neighbors, following this basis and the customers come back to him each year. Sometimes his neighbors wish as few as 50 eggs hatched, while others fill the incubator each time. When only 100 or 50 eggs are received from a customer, the chicks are kept separate by dividing the egg trays in the incubator into compartments which hold the required number. The chicks are kept separate in this way, when the hatch comes off, there is no trouble in returning the chicks to the customer which come from his own eggs.

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White Wyandottes White Rocks Anconas	$6.00	$11.50	$22.00
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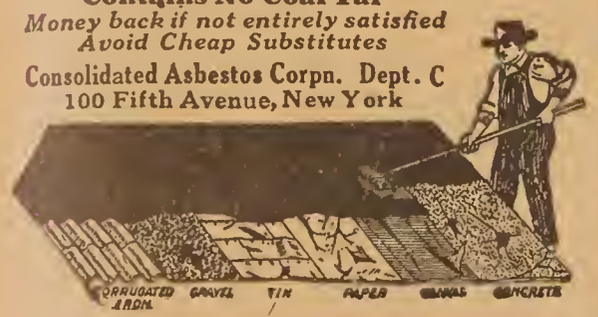

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BE SURE TO SAY "I SAW IT IN THE AMERICAN AGRICULTURIST."

price?" If you are one of these people you made a big mistake for it takes just twice the money to put hens in condition than it would have taken in September, and they have been boarding with you besides. Our theory is, it is not the hen who lays the largest number of eggs in a year that pays the most profit, but the one who lays the eggs at the time when they bring the most money.

Can you produce three dozen eggs in summer when they bring 30 cents a dozen, as cheap as you can produce one dozen when they are 90 cents? Perhaps you can, but I don't agree with you. We have fifteen full-blood Columbian Wyandotte hens, 1921 hatch, that laid 394 eggs in the last 18 days of November and 31 days of December. These eggs sold for over $27 on the market, and these hens consumed in that time, about $5 worth of feed. But remember these hens were in fine condition when they went into winter quarters and were laying then.

These hens made a record as pullets and will be in our breeding pens this year, headed by a cockerel from a very heavy winter laying strain and we hope to raise our record next year. It is a great temptation when there is a nice warm day and no snow, to let the hens run out, but it is a mistake and the egg basket will tell you so, if you don't get some colds to doctor besides. There is no larger detriment to hens than cold feet. I was in the hen house recently, where a part of the floor was dirt covered with coal ashes and holes cut in the sides of the building a few inches up from the floor. These were covered with wire and cloth. I was told in pleasant weather the cloth was raised. Now those ashes cannot help but be cold and neither can there help but be a draft on this floor if the curtain is not fastened very tight, which it cannot be if it is raised and lowered.

Every day or so I know these hens have cold feet. I was told they "do not lay" and I am sure they have more feed than ours do, some fancy mixed feed to be sure, which ours never have. The cold has more to do with it than the feed. We have gained all our methods from years of experience and some of it has been expensive too, so we are glad to help others and try and prevent many costly mistakes.

A Boost For Wayne County

(*Continued from page* 265)

teams six miles to Palmyra and shipped from there by rail, and all of the coal used in Marion was drawn by the teams on their return trips from Palmyra. But now times have changed. Marion is no longer a back number. It has a railroad from Marion to Newark connected with the Pennsylvania Company, which handles all the freight and furnishes all the cars at all times they need and whenever they want them, so that the Marion Railway never lacks for cars at any time.

Yes, times have changed in Wayne County since I became a subscriber to the American Agriculturist, which has stood so faithfully by the farmer for a prosperous Agricultural, and to-day is the nineteen-twenty-three leading farm journal of the State. Taxes are more, to be sure, but everything comes at a price, so, for all of the privileges we enjoy now, we pay but little more compared to years ago.

So, now, I think, Wayne County, with her 15 towns, has made some great improvements along the lines of agriculture by building good roads and good school houses, cleaning up waste land and draining the same for use, building modern farm buildings, with good churches and every other public building that goes to make a modern and enterprising county. And as long as the hills of Wayne stand and the valleys produce as bountifully as in the past, and with the Barge Canal floating through its center, with our assistant Superintendent of Public Works now appointed to look after the interest of the taxpayers of both parties in the county, we can feel assured that no public money will be wasted, but that results will be produced and that the people are ever ready to do their bit in any good cause up in Wayne County, and ever looking forward for a bountiful harvest and a happy and prosperous year.—FRANK MANDERS. Marion, N. Y.

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When I Buy Cows

How To Ship Cattle by Express

By H. E. BABCOCK

ALMOST unbearably slow after the swift rush of the motor car we jerked along in a swell-bodied cutter on a track level with the fence tops on either side.

We come to a white farm house backed by long, low, wood-colored buildings. We turn in between shoulder-high snow drifts. The owner greets us, and we stiffly stump our way to the cow stable. A pleasant odor, the peculiarly sweet smell of the well-kept winter dairy greets us. My glasses steam up. I stand confused, uncertain, and gradually, as though a fog were lifting, two long rows of dairy cows appear on either side of us.

A big gray roan attracts my attention. She looks large in comparison. I want big cows. In fair condition, springing eight or nine years old, with every evidence of being a good producer. Her price is $60. I pass her up; she is too old—her color is against her.

A nice black-and-white five-year-old next attracts me. I am told she was fresh last fall. She will weigh perhaps 1,000 pounds. Her udder is nicely balanced, but small, with a milk vein running straight along the belly to enter through a milkwell little larger than a small pencil. Her owner thinks she is bred. Forty dollars for her. I pass her up—too small, too little evidence of production—too uncertain about her being a fall cow.

As I go from cow to cow, I begin to get my ideas of size adjusted. The big roan cow merely looked big in comparison. She will weigh perhaps 1,200 pounds. I like the 1,400 and 1,500-pound kind. I am looking for them and willing to pay for them.

Then, everything is too thin. With feed at $50 a ton, it pays to buy as much feed as possible in a springer. No thin cow can do herself justice. So we pass on.

All day long we repeat the experience. We see perhaps 300 head of cattle. Every man we visit is ready to sell. But cattle generally are small; they are too thin; many of them show evidence of unwise feeding.

Finally, just at night, I find what I want—a herd of big, straight, well-marked, good-uddered, young cows. I pick to my heart's content. I turn them out, to be sure of my idea of size. I cheerfully pay the price. I am richer or poorer, as the case may be, by 45 cows.

This, in substance, summarized my experience buying cows. I know of no job I enjoy more, nor one that demands more skill.

The Range of Prices

I found cows were plentiful, the range of prices for springers to be from $60 to $100, for fall cows to be from $40 to $90. Generally, the cows in the herds I visited were clean. Most all of them, however, were thin, and in many herds I was really surprised at the lack of evidence of production. These small, thin cows that lack any evidence of breeding can be bought below $50. The others, those with some size, condition and breeding, range up to $100.

The first group, despite the abundance of them for sale, are too high. A man cannot afford to own them. If our T. B. officials don't watch pretty carefully there will be a lot of them T. B.-tested this summer.

The others seemed cheap, but who can tell? A good, fat, young springer that will give 50 to 60 pounds of milk this spring and early summer months ought to be worth $100, even if the milk market, as seems likely, does go all to pieces. She can be kept over and with more stable conditions ought to pay for herself. But again, who can tell? These are indeed uncertain times.

Appearances Play Big Part in Sale Value of the Herd

No little part of the sale value of a herd depends upon the first impression it makes on a buyer when he steps into the barn. Placing a good cow on the end of the string next the door, therefore, becomes simply a matter of good business.

Next in importance comes the matter of arrangement in the line-up. When a big raw-boned cow stands next to a little chunky animal, the undesirable characteristics of both are accentuated. A bad sloper should not stand opposite a bright window. Buyers are looking for type these days.

If cows always stand in the same places they may be lined up so as to appear almost uniform in size. Such a line-up adds materially to the appearance of the herd as a whole.

Clippers run over the udder and along the milk veins on a fresh cow bring out that milky appearance buyers always look for. Tails should be clipped, of course, but we do not like to bob off the brushes. There is nothing, after all, that quite so much adds to the "dress-up" of a cow as to have her switch washed and brushed out. I know one man who runs a most practical dairy farm but who sells a few cows every week, who always washes out his cows tails. He tells me that two men can clean up sixty cows in about half an hour and that he can cash in on the time so spent on every sale.

His method is to rinse the switch out in a pail of warm water, give it a twist to dry it, and then to follow along and give it a vigorous shake or two and a few passes with a big coarse brush.

Ready to Travel from Ithaca to Bermuda

SHIPPING BY EXPRESS

From time to time we ship animals away by express. We also occasionally have them shipped to us. Our experience both in shipping and receiving leads me to set down here our conclusions for what they are worth in regard to the proper kind of a crate in which to handle an animal.

To begin with, cattle crates should always be built on bed-pieces running lengthwise of the crate. This makes it possible to put rollers under them and so roll them easily in and out of a car and on an express truck. We have received crates built with three cross

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The cost of any silo should include the cost of erection. No extra, expert *hired* help is necessary to put up a Unadilla. Any handy man with boy or woman helper can erect it.

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NEGLECT Will Ruin Your Horse

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SEND TODAY

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$3 Package guaranteed to give satisfaction or money refunded. $1 Package sufficient for ordinary cases Postpaid on receipt of price. Write for descriptive booklet

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STRUVEN'S PROVES MOST HELPFUL

You will soon notice the greatly improved condition of your poultry, hogs and stock if STRUVEN'S FISH MEAL is used with their feed. It supplies the necessary proteins and minerals. Made from fresh, whole fish, finely ground — rich and nourishing. Write today for valuable feeding instructions—free.

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SELDOM SEE a big knee like this, but your horse may have a bunch or bruise on his ankle, hock, stifle, knee or throat.

ABSORBINE TRADE-MARK REG. U.S. PAT. OFF.

will clean it off without laying up the horse. **No blister, no hair gone.** Concentrated—only a few drops required at an application. $2.50 per bottle delivered. Describe your case for special instructions and Book 8 R Free.

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Are stamped with any name or address with serial numbers. They are simple, practical and a distinct and reliable mark. Samples free. Agents wanted.

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BARREN COWS are the results of **CONTAGIOUS ABORTION**

Prevent this by using ABORNO. Easily administered by hypodermic syringe. Kills abortion germs quickly without harming cow. Write for booklet with letters from users and full details of **Money-Back Guarantee.**

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HOMESPUN TOBACCO Chewing, 5 lbs., $1.75; 10 lbs., $3; 20 lbs., $5.25. Smoking, 5 lbs., $1.25; 10 lbs., $2; 20 lbs., $3.50.

Send no money. Pay when received.

COOPERATIVE TOBACCO GROWERS, PADUCAH, KY.

Net Profit!

Every man who milks cows for a living knows that *net profit* -- income over labor and feed costs -- determines the value of a dairy herd.

Holstein Herds Assure Net Profit --

through large, economical production of milk and butter-fat, regular crop of healthy calves, greater salvage value from animals after milking days are ended.

Holsteins Will Increase Your Net Profit

Let Us Tell You the Story of the Holstein Cow

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CATTLE BREEDERS

I have 100 fresh cows

and springers due to freshen in the next two months. They are the best obtainable in N. Y. State, black and white and red and white and in the best of condition, and I will be pleased to show them to the critical buyer that cannot find what he wants elsewhere. If you want the best, I want your business. Don't write for prices, but wire when you will come.

F. L. PALMER, Moravia, N. Y.

Holstein Cows For Sale

125 cows that are due to freshen within the next 60 days. They are as fine a lot of dairy cows as you could wish to see and are just as good as they look. You can save money by buying now.

A. F. SAUNDERS

Telephone 1476 CORTLAND, N. Y.

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Sons of

DUTCHLAND COLANTHA SIR INKA

FISHKILL FARMS, Hopewell Junction, N. Y.

HENRY MORGENTHAU, Jr., Owner

HOLSTEINS

Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. **J. A. LEACH, CORTLAND, N. Y.**

HIGH-GRADE HOLSTEIN COWS

fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.

Browncroft Farm McGRAW New York

HOLSTEIN BULL Born Dec. 7th, 1921. Sired by a 33-pound Son of King of the Pontiacs, Dam is 24.95-pound daughter Changeling Butter Boy. He is nicely marked, splendid individual, well grown and ready for service. Priced to sell.

FRED. A. BLEWER
Owego, N. Y.

FOR SALE HOLSTEIN—thoroughbred heifer and bull calves. Sire—son of King of the Ormsbys, by 28-pound cow. Price, $55 and $35. Registered, also an Abbekerk heifer.

THEO. T. BAYLOR, 52 Broadway, New York City

SWINE BREEDERS

LARGE YORKSHIRE BOARS

FOR SALE

Well-grown for their age and vigorous. Ready for immediate service. Priced at farmers' prices.

HEART'S DELIGHT FARM, Chazy, N. Y.

REG. DUROCS — From prize-winning herd. Premiums from 10 fairs fall 1922. Orion Cherry King and Top Col. strain.

J. W. COX & SON, R. 5, NEW CASTLE, PA.

CHESTER WHITES and O. I. C. Big Type Grand Champion bloodlines. Pigs, $10 each, prepaid. GEO. F. GRIFFIE, Newville, Pa.

LARGE BERKSHIRES AT HIGHWOOD

Grand champion breeding. Largest herd in America. Free booklet.

HARPENDING Box 10 DUNDEE, N.Y.

REGISTERED O. I. C. AND CHESTER WHITE PIGS. E. P. ROGERS, WAYVILLE, N. Y.

bed-pieces, which made it impossible to use rollers to any advantage.

The next most important consideration is to have the crate boarded closely for some eighteen to twenty inches up from the floor. When a crate is being handled an animal is apt to lose its balance, and in its struggles to right itself will often stick its leg through the slats unless these are close enough together to prevent such an accident.

As Comfortable as the Stable

Other valuable features in crate construction are brought out in the illustration, which shows an animal crated for shipment to Bermuda. This crate is so constructed that an animal can live comfortably in it almost indefinitely. It stands in a stanchion, just as though it were in its own stable. There is a manger in which a pail of water can be set and in which hay and grain can be fed. The back door is so hinged as to open outwards and permit easy cleaning of the crate, and rebedding of the animal.

The crate in the illustration looks a little heavy in construction, but our experience has been that it is much better to pay express on 100 pounds of lumber and have a crate which will withstand strain, than to economize on weight and have a crate go to pieces during shipment. A crate such as is shown in the illustration can be used indefinitely, and an animal can be safely shipped in it almost any distance over any sort of route.

I Visit Two Unusual Farms

(*Continued from page* 267)

highest grades of beef shipped in from the big packing houses.

That man has one job ahead of him, which, if it were mine, I would look forward to as something pretty dreadful. He is hopeful that by spring his great strawstack will be undermined and leveled down and trodden into the barnyard. It will also be mixed with liberal quantities of cow droppings and well-laced, with long cornstalks from which the cattle have husked the nubbins. Also it will be weighted with plenty of snow water and with the weepings of the April showers and somehow it must be gotten out onto the fields.

Undisputed Championship

NOW, according to the most celebrated of the Greek myths, the fifth of the twelve Labors of Hercules, consisted of the job of cleaning the stables of King Augeas, where 3,000 oxen had been fed for 30 years, and neither the King nor his hired man had ever drawn out a single load of manure during all that time. Well, Hercules was a youth, large for his years, husky and ful of pep, and a sort of a demi-god, anyway. So when he was taken around and shown the job, he promptly drew on his rubber hip-boots, peeled off his coat and vest, spat on his hands and waded into it and cleaned up the whole mess by sundown, thus winning the undisputed title as the champion long-distance manure-thrower of all time and making for himself an imperishable name that can never pass away. I am assured, however, that Hercules will have very little on this Cayuga County farmer after the manure spreader goes into action in the front-line trenches next spring.

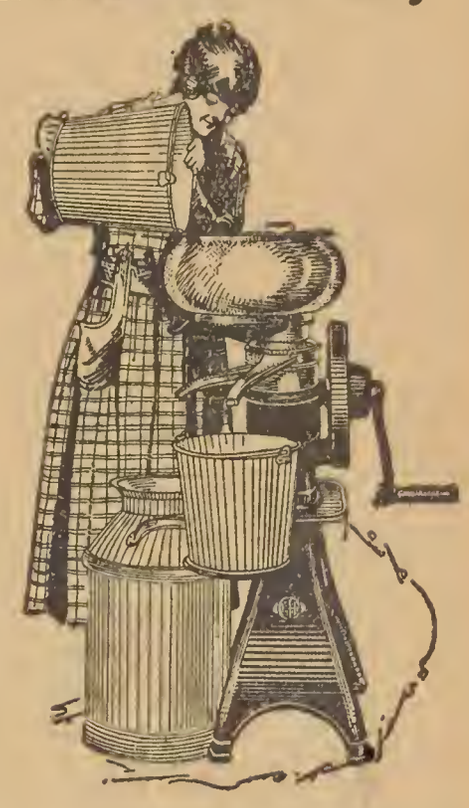
This man is surely dealing with his problems in a way that is very unusual in our State, and I have no word of criticism, but only of commendation, because he is blazing a new trail. In a general way, however, I have little confidence in any sweeping or revolutionary change in our agricultural systems or methods. Most of us are dairymen, and dairymen we had best remain. This man was led to his present methods as a protest against labor conditions and a revolt against the eternal routine of the dairy farm. I do not think he expects to handle as much money as if he were to join the morning procession of milk rigs. But at least he can make his farm self-supporting from within his own fencelines. He need not feel that he has committed the unpardonable agricultural sin if he should sleep some morning until, say, six A. M.

In any case, it is most interesting to find Corn Belt Agriculture transplanted to a big, generous, old New York State farm.

THE McCORMICK-DEERING PRIMROSE

Gives You All of the Cream

It skims clean, and the cream brings the highest market price—the globules of butter fat are smooth and unbroken, and the cream is in the best condition for butter making. Such a separator brings you the greatest return from your cows. Because experienced farmers and dairymen insist upon receiving positive profits from their investment in dairy cattle, buildings, and equipment, they demand and use a clean-skimming cream separator—the McCormick-Deering Primrose.



Ask for a Demonstration of the McCormick-Deering Primrose

We want every dairy farmer to see this modern, efficient, ball-bearing separator. It combines the advantages of ample capacity with easy turning and close skimming. The McCormick-Deering dealer will be glad to give you a demonstration and trial on your own farm. Ask him to do it.

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93 Branch Houses and 15,000 Dealers in the United States

Saved Big Veterinary Bills — Cows Gave More Milk the Year Through

Mr. C. E. Dodge of Dewittville, N. Y., is one of the many cow owners who have discovered that it pays best to PREVENT cow diseases. He knows that it is a fine thing to have on hand such a valuable medicine as Kow-Kare in the event of actual diseases, such as Abortion, Retained Afterbirth, Barrenness, Milk Fever, Scours, Bunches, etc. But he also knows that a moderate use of Kow-Kare in the feed not only PREVENTS these diseases, but greatly increases the winter milk flow. He writes us his experience, as follows:

"Since I have been on the County Farm, I have been using Kow-Kare in the dairy for the last ten years. I have 52 cows. My experience is that a few dollars' worth of Kow-Kare saves us a great many dollars' worth of veterinary bills, and also every cow in the dairy that I feed it to produces more all the year thru because of the Kow-Kare. I have no sick cows or trouble, when I begin feeding Kow-Kare, from the first of January until I turn them out in the Spring."

Winter feeds are so much harder on the digestive and milk making organs of the cow that the vitality of these functions is sure to become impaired unless nature is assisted. Kow-Kare is designed primarily to strengthen these very organs so that they may throw off disease and keep up the normal milk production.

The best of it is, this valuable Kow-Kare treatment costs so little. Just a tablespoonful of the remedy morning and evening about one week in each month will keep a cow in best of health and heaviest milking. Your troubles from sick and backward cows are over when you have learned to depend on Kow-Kare.

Feed stores, general stores and druggists sell Kow-Kare; large size $1.25, medium, 65c. We will send postpaid if your dealer is not supplied. Write now for our valuable book, "The Home Cow Doctor."

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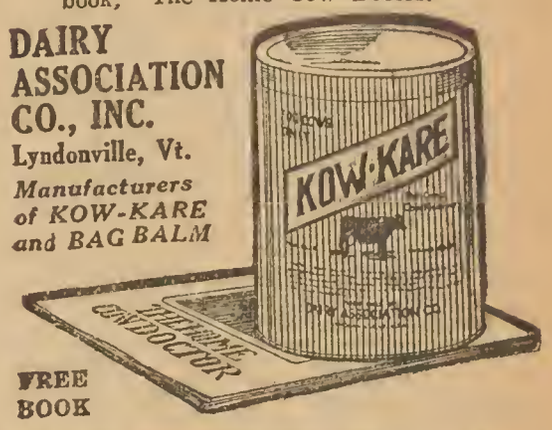

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Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

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The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

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Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS—BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

CERTIFIED S. C. WHITE LEGHORN CHICKS AND EGGS. High pedigreed, trap nest stock, 208 to 302 egg hens mated to 300 egg males. Member of New York State Cooperative Poultry Certification Association Inc. Reference Second National Bank. E. DELAMARTER, Elmira, N. Y.

HATCHING EGGS— S. C. BUFF ORPINGTON, Owens' Strain $2.50 per 15; Jersey Black Giants, Marcy Strain $3 per 15; 265-270 S. C. W. Leghorns, Kerlin Strain $1.50 per 15. HILLCREST FARM, R. 3, Montrose, Pa.

REAL RED REDS, Single Comb, pure bred, deep, rich, red, vigorous Cockerels and Pullets; three, four, five dollars; satisfied customers. MEADOWBROOK FARM, Route 3, Box 210, Lancaster, Pa.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

PURE-WHITE BOCKY WHITE WYANDOTTE, quality egg-bred S. C. Ancona, correct colored Buff Leghorn Cockerels. Courteous service. OWNLAND FARMS, Hammond, N. Y.

EGGS FOR HATCHING; Black Minorca and Barred Rocks, large, healthy bred to lay stock, $1.50 for 15; $7 per 100. Satisfaction guaranteed. A. L. YATES, Whitney Point, N. Y.

BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

ROSE COMB RHODE ISLAND RED COCKERELS, bred for color and egg production, shipped on approval, write, H. M. PIERCE, R. 3. Franklinville, N. Y.

S. C. BLACK MINORCAS, pure bred with size, quality and production. Eggs 15 per $1.50; 50, $4.50; 100, $8.50. H. C. STALEY, Route 6, Delaware, Ohio.

SINGLE COMB WHITE LEGHORN HATCHING EGGS, from two year old stock, Wycoff strain, $2 for 24; $7 per hundred, delivered. ALLAN MORTON, Ashville, N. Y.

JERSEY BLACK GIANT COCKERELS AND EGGS. Buff Columbia Rocks, White China goose eggs for hatching; thoroughbred stock, reasonable. Box 301, Plainfield, N. J.

DARK ARISTOCRAT BARRED ROCKS exclusively. Eggs, $9 100; Pens, $3 and $5 per 15. Fertility guaranteed. HILLCREST FARM, St. Joseph, Ky.

SINGLE COMB BROWN LEGHORNS. Seven thoroughbred laying pullets delivered to you by prepaid express for $12. BRUSH, Milton, Vermont.

BABY CHICKS—Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

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PURE VERMONT MAPLE PRODUCTS of highest quality. Circular and price list free. HILLSDALE FARM, Glover, Vt.

PEARL GUINEAS. White Wyandotte, Mammoth Pekin Duck Eggs. LAURA DECKER, Stanfordville, N. Y.

HATCHING EGGS, S. C. Buff Orpingtons, $2 per 15; Jersey Black Giants, $3. T. BOWLBY, 901 East Ave., Elmira, N. Y.

FOR SALE—Mammoth Toulouse Goose eggs, 40 cents each, postpaid. CHAS. D. PAXTON, Rt. No. 5. Zanesville, Ohio.

JERSEY BLACK GIANT ROOSTER, 2 years old $7. A fine bird. T. BOWLBY, 901 East Ave., Elmira, N. Y.

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BUFF ROCK COCKERELS — RIDGEWOOD FARM, Ballston Lake, N. Y.

EGGS AND POULTRY

WHITE LEGHORN QUALITY CHICKS. Superior layers. Write NELSON'S, Grove City, Pa.

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PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

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ROSE COMB BROWN LEGHORN EGGS, Reasonable. MAPLEWOOD, Navarre, Ohio.

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MAMMOTH BRONZE TOMS, Goldbank strain. C. A. NICHOLS, Gouverneur, N. Y.

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HONEY—Guaranteed finest quality, Clover, 5 lbs., $1.10; 10 lbs., $2. Buckwheat, 5 lbs., $1; 10 lbs., $1.75; prepaid. M. BALLARD, North Branch, N. Y.

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REGISTERED JERSEYS. Bargain. Two good young bulls $50 each. Fine 17-months old heifer, $125. HENRY INGALLS, Greenville, N. Y.

FOR SALE—About 15 or 20 pure bred Holstein cows at reasonable prices. Two clean Federal tests. S. R. LEWIS, Mountainville, N. Y.

MILKING SHORTHORNS, REGISTERED bull calves for sale at farmers prices. WM. SHAFER, Thompson Ridge, Orange Co., N. Y.

FOR SALE—Registered Hereford cattle, both sexes. CASE COTTRELL, Hoosick Falls, N. Y.

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THOROUGHBRED FOX HOUNDS and English Beagles, any age. Also Columbian Wyandotte eggs from first prize winners, $2 per 15 or $8 per 100. D. C. KALTREIDER, Red Lion, Pa.

COLLIES, beautiful females, sable and tricolor. JOHN D. SMITH, Walton, N. Y.

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REGISTERED POLAND-CHINAS, BERKSHIRES, Chester Whites, all ages, mated, not akin. Bred sows, service boars; collies, beagles. P. HAMILTON, Cochranville, Pa.

FOR SALE—Registered Chester White Swine. All ages, write your wants. ORCHARD SLOPE FARM, R. D. 4, New Castle, Pa.

RAW FURS AND TRAPPERY

LET US TAN YOUR HIDE—Cow and Horse hides for fur coats and robes. Cow and Steer hides into Harness and Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

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SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

MALE HELP WANTED

RELIABLE MAN WANTED to take orders for fruit and ornamental trees, shrubs, roses and seeds. Opportunity to become District Superintendent. Pay weekly. Equipment free. FRUIT GROWERS' NURSERIES, Drawer G., Newark, New York State.

WANTED—Experienced poultryman on private estate in Dutchess County, N. Y. Married man desired—house provided. Apply, "G. Y." P. O. Box 822, City Hall Station, New York City.

SEEDS AND NURSERY STOCKS

I AM THE FIRST Specialized Breeder to put new species of field and sweet corn on the market, tested against all varieties from every State, and proved the highest yielders, sample lb., either kind 50c. F. GENT, Rockford, Minn.

FOR SALE—Choice large gladiolus bulbs, pink, yellow, white, red, purple etc., at $5 per hundred, choice small at $3 per hundred. Write for larger quantities. R. L. CHURCH, Skaneateles, N. Y.

STRAWBERRY — Black Raspberry Plants. Wait! Don't order your plants until you get our prepaid prices. We can save you money and furnish the quality. F. G. MANGUS, Pulaski, N. Y.

DAHLIAS—$1.50 per dozen, labeled; $2 per 20, not labeled. Decorative, peony, show cactus. Circular; also white Eskimo puppies, $15 and $20. MRS. HOWARD HOLSINGER, Denton, Md.

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AMAGER STRAIN DANISH BALLHEAD CABBAGE SEED, Imported direct from Copenhagen, Denmark $2.50 lb. postpaid. C. J. STAFFORD, Cortland, N. Y.

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FREE SEEDS—Hollyhock, dahlia, double poppy, with four dahlias, cactus, decorative or show, 50c. OLIVANNE DAHLIA GARDENS, New Bedford, Pa.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

SEED POTATOES AND SHADELAND CLIMAX OATS, White Grant and Russet Best to yield or cook. M. L. GLASGOW, Glasgow, Pa.

SEED POTATOES GREEN MOUNTAINS AND GOLD COIN; First Prize State Fair 1922. Selected stock. ROY HASTINGS, Malone, N. Y.

40 LARGE, mixed gladiolus, or 20 purple and light-pink Dahlia bulbs $1 postpaid. HOWARD GILLETT, Stanley, N. Y.

FOR SALE—Selected seed corn, variety, Angel of Midnight, price, $2.50 per bu. C. F. WHEELER, Mannsville, N. Y.

DAHLIAS—Dark red, 75c per dozen, pink and mixed colors not labeled $1 per dozen. S. S. SHIELDS, New Bedford, Pa.

STRAWBERRY PLANTS. Choice stocky plants at fair prices, catalog free. H. H. BENNING, Clyde, N. Y.

400 BUSHELS OF PROLIFIC (Silvermine type) Oats at Farmers' prices. OWNLAND FARM, Hammond, N. Y.

HELP WANTED

RELIABLE MAN at once, steady work, state wages, experience, farming, calf raising, milking. N. W. Penna. Care O. H. B. AMERICAN AGRICULTURIST, 461 4th Avenue, New York City.

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

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PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

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FOR SALE—Good water-power feed mill, buckwheat flour outfit, planing and sawing mill, with 23 acres of land, good house and barn on State Road, one mile to school and railroad, splendid opportunity for right man; price $6,000. Write, F. A. ANNIS, Brookton, N. Y.

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FOR SALE—6 H. P. gasoline engine, fine condition; well built, long bearings, upright. $50 FRED UNSER, JR., Mineola, L. I.

FOR SALE—Frick portable steam engine, 8 H. P. boiler. 6 H. P. engine. A-1 condition. R. H. BENTRIM, Fombell, Pa.

FOR SALE, International Harvester Company tractor 12-25 H. P. in first-class condition. D. E. PAGE, Perry, N. Y.

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REAL ESTATE

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FOR SALE—Delaware County Dairy Farm of 108 acres. MARY A. FINCH, Sidney Center, N. Y.

REAL ESTATE

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FOR SALE—160 acres on macadam, good buildings, stock and tools included, near railroad station and Cornell. Box 125, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

FOR SALE—No 1 New York Farm; 63 acres, good buildings, fences, furnace, two wells. Near State Road. Box 130, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

FARM FOR SALE—Cheap; 110 acres in Southern Cayuga County, New York. One mile from railroad. Box 131, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

WANTED—Well located "village" home, 10 to 20 acres; poultry and truck, North half of New Jersey. Box 124, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

FARM FOR SALE—145 acres, river bottom, State Road, with high school, stores, churches. Box 126, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

WANTED—1 to 3 acres in Monmouth County, New Jersey. With or without buildings. Must be reasonable. McCULLOCH, Farmingdale, N. J.

FARM FOR SALE—170 acres on State Road; ½ mile from railroad station—milk station. Write for information. FRANK COLLIER, Preble, N. Y.

FOR SALE—Lancaster County Farm; 32 acres. Stock and equipment. On good road. Price $3,200, terms. SAMUEL MANNING, Elizabethtown, Pa.

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$4,000 CASH buys 150-acres improved farm, good land, fine buildings, live community, balance, terms. TOWNSEND, Berkshire, N. Y.

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A sky of brass, the sun a flame, A hunk of earth so doggone hot
And the land no place to dwell; That it still belongs to Hell.

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Who were the devils in human form whose haunt was the lost barranca? Invisible, terrible; they brought the redoubtable young officer of the law to a strange dilemma. The law of the land commanded him not to desert his prisoners; the law of the desert ordained that he stand by his companions. Which did the Fates decree he should obey?

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FOR SALE—13 acres, one mile to town on good road, good buildings, ideal truck farm. $1,500. C. R. BASHORE, Bethel, Pa.

LOT FOR SALE—Stone house, frame barn, garden; 35 fruit trees, ¾ mile from trolley. MRS. VINNIE SAYLOR, Limeriek, Pa.

FOR SALE—115 acres, Lake Front; 700 orauge trees; house and barn, $20,000. F. B. LYNCH, Box 924, Orlando, Fla.

FOR SALE; Place 3-acres good land, and buildings; near village; soon stone road. C. E. YOUNG, Hyndsville, N. Y.

FARM FOR SALE—100 acres, 50 cleared and 50 woodland, good hay farm. E. T. BROCK, West Danby, N. Y.

FOR SALE—182-acre Grain and Dairy Farm. On State Road. MRS. J. A. McBRIDE, R. 1. Stillwater, N. Y.

FOR SALE—82½-acre farm, on State Road; 1½ miles south of Hilton. FLOYD LOWDEN, N. Y.

WANTED—A Farm to work on shares, near Phoenix, N. Y. DAVID MASON, Phoenix, N. Y.

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FOR SALE—Ayrshire calves, both sexes, of high production breeding at farmers prices. EDWIN HARADON, Route 4, Corning, N. Y.

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Please insert the following advertisement in your classified department in your next available issue. This is in accordance with your special offer and it is understood this is to be free of charge.

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The Valley of the Giants—*By Peter B. Kyne*

"I DO NOT know that she feels for me anything stronger than a vagrant sympathy, Dad, for while she is eternally feminine, nevertheless she has a masculine way of looking at many things. She is a good comrade with a bully sense of sportsmanship, and unlike her skunk of an uncle, she fights in the open. Under the circumstances, however, her first loyalty is to him; in fact, she owes none to me. And I dare say he has given her some extremely plausible reason why we should be eliminated."

"Perhaps, perhaps. One never knows why a woman does things, although it is a safe bet that if they're with you at all, they're with you all the way. Eliminate the girl, my boy. She's trying to play fair to you and her relative. Let us concentrate on Pennington."

"The entire situation hinges on that jump-crossing of his tracks on Water Street."

"Then, lad, your job is to get your crossing in before he finds out, isn't it?"

"Yes, but it is an impossible task, partner. I'm not Aladdin, you know. I have to have a franchise from the city council, and I have to have rails."

"Both are procurable, my son. Induce the city council to grant you a temporary franchise to-morrow, and buy your rails from Pennington. He has a mile of tack running up Laurel Creek, and Laurel Creek was logged out three years ago. Ninety-pound rails are rusting there."

"But will he sell them to me?"

"Not if you tell him why you want them."

"But he hates me, old pal."

"The Colonel never permits sentiment to interfere with business, my son. He doesn't need the rails, and he does desire your money. Consider the rail-problem settled."

"How do you stand with the Mayor and the council?"

"I do not stand at all. I opposed Poundstone for the office; Dobbs was once a bookkeeper in our office, you will remember. I discharged him for looting the petty-cash drawer. Andrews and Mullin are professional politicians and not to be trusted. In fact, Poundstone, Dobbs, Andrews, and Mullin are known as the Solid Four. Yates and Thatcher, the remaining members of the city council, are the result of the reform ticket last fall, but since they are in the minority, they are helpless."

"That makes it bad."

"Not at all. The Cardigans are not known to be connected with the N. C. O. Send your bright friend Ogilvy after that franchise. Give him a free hand and tell him to deliver the goods by any means short of bribery. I imagine he will know exactly how to proceed. I *know* you can procure the rails and have them at the intersection of B and Water streets Thursday night. If Ogilvy can procure the temporary franchise and have it in his pocket by six o'clock Thursday night, you should have that crossing in by sunup Friday morning. Then let Pennington rave. He cannot procure an injunction, and hold us up indefinitely, because by the time he wakes up, the tracks will have been cut. The best he can do then will be to fight us before the city council when we apply for our permanent franchise."

"Partner, it looks like a forlorn hope," said Bryce.

"Well, you're the boy to lead it. And it will cost but little to put in the crossing. Remember, Bryce, once we have that crossing in, it stands between Pennington and the law which he knows so well how to pervert." He turned earnestly to Bryce and waved a trembling admonitory finger. "Your job is to keep out of court. Once Pennington gets the law on us, the issue will not be settled for years; and in the meantime—you perish. Run along now and hunt up Ogilvy. George, play that 'Suwanee River' quartet again. It sort o' soothes me."

IT was with a considerably lighter heart that Bryce returned to the office, from which he summoned Buck Ogilvy by telephone.

"Thanks so much for the invitation," Ogilvy murmured gratefully. "I'll be down in a pig's whisper." And he was. "Bryce, you look like the devil," he declared the moment he entered the private office.

"I ought to, Buck. I've just raised the devil and spilled the beans on the N. C. O."

"To whom, when, and where?"

"To Pennington's niece, over the telephone about two hours ago."

Buck Ogilvy smote his left palm with his right fist. "And you've waited two hours to confess your crime? Zounds, man, this is bad."

"I know. I've probably talked you out of a good job."

"Oh, say not so, old settler. How did you let the cat out of the bag?"

"That remarkable girl called me up, and accused you of being a mere screen for me and amazed me so I admitted it."

Ogilvy dropped his red head in simulated agony and moaned. Presently he raised it and said: "Well, it might have been worse. Think if she called in person! She would have picked your pocket for the corporate seal, the combination of the safe, and the list of stockholders, and probably ended up by gagging you and binding you in your own swivel-chair."

"Don't, Buck. Comfort and not abuse is what I need now."

"All right. I'll conclude my remarks by stating that I regard you as a lovable fat-head. Now, then, what do you want me to do to save the day?"

"Deliver to me by six o'clock Thursday night a temporary franchise from the city council, granting the N. C. O. the right to run a railroad from our drying-yard across Water Street at its intersection with B Street and out Front Street."

"Certainly. By all means! Sure you don't want me to arrange to borrow a star or two to make a ta-ra-ra for the lady? No? All right, old dear! I'm on my way. Nevertheless, for your sins, you shall do me a favor before my heart breaks after falling down on this contract you've just given me."

"Granted, Buck. Name it."

"I'm giving a nice little private, specially cooked dinner to Miss McTavish to-night, in one of those private screened corrals in that highly decorated Chink restaurant on Third Street. Moira—that is, Miss McTavish—is bringing a chaperon, one Miss Shirley Sumner. Your job is to entertain Miss Sumner."

"Nothing doing!" Bryce almost roared. "Why, she's the girl that bluffed the secret out of me!"

"You promised in advance, and no excuses go now. The news will be all over town by Friday morning; so why bother to keep up appearances any longer. Meet me at the Canton at seven and check dull care at the entrance."

And before Bryce could protest, Ogilvy had thrown open the office door and called the glad tidings to Moira, in the next room; whereupon Moira's wonderful eyes shone. "Oh, how wonderful!" she exclaimed. "I've always wanted Miss Shirley to meet Mr. Bryce."

Again Bryce was moved to protest, but Buck Ogilvy kicked him in the shins. "Don't crab my game, you miserable snarley-yow. Detract one speck from that girl's pleasure, and you'll never see that temporary franchise," he threatened. And with his bright smile he set out immediately upon the trail of the city council, leaving Bryce Cardigan a prey to many conflicting emotions.

CHAPTER XXIII

FORTUNATELY Bryce Cardigan had Mr. Buck Ogilvy; and out of the experiences gained in other railroad-building enterprises, the said Ogilvy, while startled, was not stunned by the immensity of the order so casually given him, for he had already devoted to the matter of that crossing the better part of the preceding night.

"Got to run a sandy on the Mayor," Buck soliloquised as he walked rapidly uptown. "And I'll have to be mighty slick about it, too, or I'll get my fingers in the jam."

Two blocks farther on, Mr. Ogilvy snapped his fingers vigorously. "Eureka!" he murmured. "I've got Poundstone by the tail on a down-hill haul."

He hurried to put in a long-distance call for the San Francisco office of the Cardigan Redwood Lumber Company. When the manager came on the line, Ogilvy dictated a message to be telegraphed back to him at the Hotel Sequoia one hour later; this mysterious detail attended to, he continued on to the Mayor's office in the city hall.

Mayor Poundstone's bushy eyebrows arched with interest when his secretary laid upon his desk the card of Mr. Buchanan Ogilvy, vice-president and general manager of the Northern California Oregon Railroad. "Ah-h-h!" he breathed. "I have been expecting Mr. Ogilvy to call for quite a while. Show him in."

THE visitor was accordingly admitted to the great man's presence. "I've been hoping to have this pleasure for quite some time, Mr. Poundstone," Buck announced easily. "But I have had so much preliminary detail to attend to before making an official call that at last I concluded I'd just drop in informally and get acquainted." Buck's blue eyes opened wide in sympathy with his genial mouth, to deluge Mayor Poundstone with a smile that was friendly, guileless, and singularly delightful.

"Glad you did—mighty glad," the Mayor cried heartily. "We have all, of course, heard of your great plans and are naturally anxious to hear more of them, in the hope that we can help promote your enterprise and incidentally our own, since we are not insensible to the advantages when this county is connected by rail with the outside world."

"That extremely broad view is most encouraging," Buck chirped, and he showered the Mayor with another smile. "Reciprocity is the watchword of progress. I might state, however, my associates and myself are not insensible of the fact that the success of our enterprise depends to a great extent upon the enthusiasm of the city of Sequoia; and since you are the chief executive, naturally I have come to you to explain our plans fully."

"I have read your articles of incorporation, Mr. Ogilvy," Mayor Poundstone boomed paternally.

"Then you know exactly what we purpose doing, and any further explanation would be superfluous," Buck interrupted amiably. Again he favored the Mayor with his bright smile, and the latter, now fully convinced that here was a young man whom it behooved him to receive in a wholehearted manner, nodded vigorous approval.

"Well, that being the case, Mr. Ogilvy," he continued, "what can we do to make you happy?"

"Why, to begin with, Mr. Poundstone, you might accept my solemn assurances that despite the skepticism which, for some unknown reason, appears in the minds of some people, we have incorporated a railroad company for the purpose of building a railroad. We purpose commencing grading operations in the very near future, and the only thing that can possibly interfere will be the refusal of the city council to grant us a franchise to run our line through the city to tidewater." He handed his cigar-case to Mayor Poundstone and continued lightly: "And I am glad to have your assurance that the city council will not drop a cold chisel in the cogs of the wheels of progress."

Mr. Poundstone had given no such assurance, but for some reason he did not feel equal to the task of contracting this pleasant fellow. Ogilvy continued: "At the proper time we shall apply for the franchise. It will then be time enough to discuss it. In the meantime the N. C. O. plans a public dedicatory ceremony at the first breaking of ground, and I would be greatly honored, Mr. Mayor, if you would consent to turn the first shovelful of earth and deliver the address of welcome upon that occasion."

The Mayor swelled like a Thanksgiving turkey. "The honor will be mine," he corrected his visitor.

"Thank you so much, sir. Well, that's another worry off my mind." With the tact of a prime minister Buck then proceeded deliberately to shift the conversation to crops, finance and national politics, and gradually veered around to an artistic word-picture of the vast expansion of the redwood-lumber industry when the redwood-belt should be connected by rail with the markets of the entire country. Sequoia, he felt convinced, was destined to become a city of at least a hundred thousand inhabitants; with a wave of his hand studded the waters of Humboldt Bay with the masts of the world's shipping. Suddenly he checked himself, apologized for consuming so much of His Honor's valuable time, gracefully expressed his appreciation for the encouragement given his enterprise, and departed.

HALF an hour later the Mayor's telephone-bell rang. Buck Ogilvy was on the line. "I beg your pardon for bothering you twice in the same day, Mr. Mayor," he announced, "but the fact is, a condition has just arisen which necessitates the immediate employment of an attorney. The job is not a very important one, but in view of the fact that we must, sooner or later, employ an attorney to look after our interests locally, it occurred to me that I might as well make the permanent selection now. Would it be imposing on your consideration if I asked you to recommend such a person?"

"Why, not at all! Delighted to help you, Mr. Ogilvy. Let me see, now. There are several attorneys at Sequoia, all men of ability and integrity, whom I can recommend. Cadman & Banes, with offices in the Knights of Pythias Temple, would be just the people, although there is Rodney McKendrick, in the Chamber of Commerce Building—a splendid fellow, Mr. Ogilvy. And if I may be pardoned a dash of paternal ego, there is my son Henry Poundstone, Junior. While Henry is a young man, his career thus far has been most gratifying, although he hasn't had as broad an experience as the others I mentioned, and perhaps your choice had better lie between Cadman & Banes and Rodney McKendrick."

"Thank you a thousand times," Mr. Ogilvy murmured, and hung up. "We thought so, Buck," he soliloquized. "Yes, Cadman & Barnes or Rodney McKendrick may do, but Lord have mercy on the corporate soul of the N. C. O. if I fail to retain Henry Poundstone, Junior. What a wise plan it is to look up the relatives of a public official! Well! Forward, men, follow me."

Henry Poundstone, Junior, proved to be the sole inhabitant of one rather bare office in the Cardigan Block. Buck had fully resolved to give him a retainer of a thousand dollars if he asked

(*Continued on page* 279)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

JOHN CARDIGAN, redwoods pioneer, now blind and almost defeated by Colonel Seth Pennington, a rival operator, discovers that his son Bryce is in love with the Colonel's niece, Shirley Sumner. The old man shrewdly suspects that she returns his love, but Bryce, who has found her high-spirited and clever in business affairs, doubts it.

However, Shirley has secretely furnished him funds to fight her, by purchasing the Valley of The Giants, thus also thwarting her uncle, whom she is beginning to suspect of sharp practice. Bryce has brought Buck Ogilvy to Sequoia to help build a railroad which will carry his logs to tidewater and Buck promptly falls in love with Moira MacTavish, daughter of an old Cardigan woods-boss.

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As a part of our broad policy of service to readers, we now offer you a $1,000 Travel Accident Policy for one year with a three-year subscription for *American Agriculturist* all for only $2.50—just 50 cents more than our special price for a three-year subscription alone.

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Sight of Both Eyes One Thousand Dollars ($1,000.00)
One Hand and One Foot, One Thousand Dollars ($1,000.00)
Either Hand and Sight of One Eye, One Thousand Dollars ($1,000.00)
Either Foot and Sight of One Eye, One Thousand Dollars ($1,000.00)
Either Hand Five Hundred Dollars ($500.00)
Either Foot Five Hundred Dollars ($500.00)
Sight of Either Eye Five Hundred Dollars ($500.00)
Total Disability, 13 weeks or less, Ten Dollars ($10.00) per week
Life, by being struck, knocked down or run over by vehicle, while standing or walking on public highway Two Hundred and Fifty Dollars ($250.00)

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TO AMERICAN AGRICULTURIST,
461 FOURTH AVE., NEW YORK CITY.

GENTLEMEN: Please enter my subscription for American Agriculturist three years and send me a $1,000.00 Travel Accident Policy, good for one year. Enclosed find $2.50 in full payment for both the policy and subscriptions.

Signed.....
P. O......
R. F. D. No......
State.....
My age is.....

(You must be over 16 and under 70)

A Letter to Aunt Janet

A Western Niece Joins the Family Circle

GOOD Morning, Aunt Janet!

Please may I have a seat near the circle, to get acquainted with you and the rest of the American Agriculturist family? To introduce myself, I was born away down in south central Illinois where the first time I ever ventured out of doors alone my feet stuck tight in the yellow clay mud until I could not move. Fortunately an older sister came to my rescue, extricated my feet, scraped the sticky clay from my new red shoes as best she could, then lifted me on to the porch.

This same sister, when I wanted to bubble over and say just what I thought, would always remind me to be careful, "for the further it goes, the bigger it gets." My loving, watchful sister sleeps now in the old church yard along with my father and mother and most of my brothers and sisters. Few are leftwho care, and time drags heavily some times. It is then my pen is a real consolation to me.

I am a farm woman. I own and operate a 360 acre farm, which I did not inherit, but have paid for by the sweat of my brow, so to speak. Besides, I have raised five children, (being left a widow when they were all small) to be fine, respectable citizens. But they have all been lured from the farm by professional work. I am now sole occupant of an eleven room two-story house except my hired help, and they are few and far between. But when those school-teacher daughters come home to spend a short vacation, it is more like an apartment building with about two families in each room.

I keep some beautiful ponies and some high grade Guernsey cows. I have kept sheep that paid me 200 per cent on the money I had invested. They were scarcely any trouble or expense. I never failed to double my flock each year, often more, and as I term it they gave me two crops a year,—the wool in spring, and the lambs in the fall. We raise 50 bushels of oats, 200 bushels of potatoes to the acre and we raise the best of everything with the least work of anywhere in twenty-two states of the Union where I had lived. Hay is our main crop, strawberries, blue berries, cranberries and red raspberries grow wild in profusion.

We raise the finest of garden vegetables and I never get clay mud on my shoes now-a-days. Our soil is a sandy loam, light and easy to cultivate. We are on the farm because we are happiest there. Aunt Janet, if you harbor any doubts, come and see "ye scribe" next summer. While we like it all the year round, we invariably invite our friends to visit us in the summer.

You will see that no man in Wisconsin need be without a home of his own!

MRS. DALE B. MERCER.

HARDY HERBACEOUS PLANTS

BERTHA ALZADA

FARMERS do not like to take the time to plant flowers, and they are very busy at the season when annuals and bedding plants must be planted. Blooming shrubs have their place, but may not be depended on throughout the summer, for few of them bloom except in the spring and fall. The herbaceous perennials make the best hardy bloomers and there are so many kinds and colors blooming at all seasons that the garden can be kept bright all summer. In early spring the bleeding hearts and columbines, irises, violets, pinks, poppies, and peonies are followed by the hardy phlox, gaillardias, shasta daisies, snapdragons, campanulas, funkias, and a dozen others even up to the time the golden glow and pompon chrysanthemums welcome the fall frosts.

Once planted, the hardy herbaceous perennials will need no more attention except to prevent weeds encroaching upon them. They will grow and bloom for many years. The natural method of leaving a covering of leaves to rot on the surface of the ground around their roots from year to year will keep them thrifty unless the soil where they are planted is poor and hard. They will grow where almost any plant will grow and will give more satisfaction when neglected than will most flowers. The cost of good two-year field grown roots is not great, and in many communities the old favorites are passed around until everybody is supplied.

The Valley of the Giants

(*Continued from page* 278)

for it, but after one look at Henry he cut the appropriation to two hundred and fifty dollars. Young Mr. Poundstone was blonde and frail, with large round spectacles, rabbit teeth, and swiftly receding chin. Moreover, he was in such a flutter over the arrival of his client that Buck deduced two things—to wit, that the Mayor had telephoned Henry, and that as a result, Henry was in no fit state to discuss the sordid subject of fees. Ergo, Mr. Ogilvy decided to obviate such discussion. He handed Henry a check for two hundred and fifty dollars, which he wrote out on the spot, and with his bright winning smile remarked: "Now, Mr. Poundstone, we will proceed to business. That retainer isn't a large one, I admit, but neither is the job I have to-day. Later, if need of your services on a larger scale should develop, we shall of course expect to make a new arrangement. I trust that is quite satisfactory."

"Eminently so," gasped the young disciple of Blackstone.

"Very well, then; let us proceed to business." Buck removed from a small leather bag a bale of legal-looking documents. "I have here," he announced, "agreements from landowners along the proposed right of way of the N. C. O. to give that company, on demand, within one year from date, satisfactory deeds covering rights of way described in the agreements. I wish these deeds prepared for signing and recording at the earliest possible moment."

"You shall have them at this time tomorrow," Henry promised.

THE head of Henry Poundstone, Junior, was held high for the first time since he had flung forth his modest shingle six months before, and there was an unaccustomed gleam of importance in his pale eyes as he rushed into his father's office.

"By jinks, Dad!" he exulted. "I've hooked a fish at last!"

"Omit the cheers, my boy. Remember I sent that fish to you," his father answered with a bland and indulgent smile. "What are you doing for Ogilvy, and how large a retainer did he give you?"

"I'm making out deeds to his rights of way. Ordinarily it's about a fifty-dollar job, but he handed me out two hundred and fifty dollars. Why, Dad, that's more than you make in a month as Mayor."

"Well, that isn't bad. However, it would be mere chicken-feed in San Francisco."

"Read this," Henry urged, and thrust a yellow telegraph-form under the Mayor's nose. The latter adjusted his glasses and read:

"Imperative building operations commence immediately. We must show good faith to New York friends. J. P. M. insists upon knowing promptly where we stand with Sequoia city council. See immediately and secure temporary franchise to enable us cross Water Street at B Street and build out Front. Your arrangement with Cardigan for use of mill-lock and spur for unloading material from steamer ratified by board but regarded as hold-up. If your judgment indicates no hold-up on permanent franchise, commence active operations immediately upon acquiring temporary franchise. Engage local labor as far as possible. Cannot impress too fully necessity for getting busy, as road must be completed in three years if plans are to bear fruit and time is all too short. Impress upon city council and wire answer to-morrow.

HOCKLEY."

This telegram, as the Mayor observed, was dated that day, and, with a keen eye to minor details, he noted that it had been filed at San Francisco *subsequent* to Ogilvy's call upon him.

(*Continued next week*)

$40 GIVEN FOR A NAME. Contest open only to purchasers of this collection.

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Big, Thrifty, Strong-rooted, 2 or 3 yr.-old Bushes. Every bush has already bloomed. Guaranteed to grow and bloom for you, or your money back. Pick regular long-stemmed, hot-house roses all summer long from your own garden. These finest, fragrant varieties:

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Low price holds only till limited number of collections is sold. Send order and $1.95 today—selected bushes mailed postpaid when planting season opens; also FREE copy of Collins 1923 Planting Guide.

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For limited time only, you have rare opportunity to buy this high-grade watch 50% below market price. 12 size, latest thin model, 20 yr. 14Kt. gold-filled case. Beautiful dial. Handsomely chased border, fancy engraved back. Full jewel, well-known ALERT movement. Perfectly regulated and adjusted. Guaranteed to keep excellent time.

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50 Single rooms - - - $2.25 per day
100 Single rooms - - - 2.50 per day
250 Double rooms - $4 per day and upward
Single rooms, with bath, 4 per day and upward
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During the Winter Season the balconies surrounding the Sunken Palm Garden are enclosed in glass. GEORGE C. BROWN.

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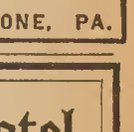

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FORD makes 25 to 40 miles on gallon, increases power and removes carbon, install in few minutes. Price only $4; returned if unsatisfied. J. DEEGAN, 45 Second St., NEWBURGH, N. Y.

CIGARS SPECIAL OFFER. Clear Havana "Invincibles," long filler, handmade, while they last. $2; box of 50. Will suit or your money refunded. MAYER CIGAR CO., 9 Church St., New York

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WHITE House Coffee is a wise thing to ask for; and it is a mighty fine thing to get. Don't accept "Something else."

The Security of Our Package:

It is the wonder and despair of our competitors—this Package of ours. There couldn't possibly be a better one. It thoroughly and completely protects the coffee—in every way.

$24.95 Upward Sent on Trial American Cream SEPARATOR

Thousands in Use giving splendid satisfaction justifies investigating our wonderful offer: **a brand new, well made,** easy running, easily cleaned, perfect skimming separator **only $24.95.** Skims **warm or cold** *milk closely.* Makes thick or thin cream. Different from picture, which illustrates our low priced, large capacity machines. Bowl **is a sanitary marvel** and embodies all our latest improvements. **Our Absolute Guarantee Protects you.** Besides wonderfully low prices and generous trial terms, our offer includes our—

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Whether dairy is large or small, do not fail to get our great offer. Our richly illustrated catalog, **sent free** on request, is a most complete, elaborate and interesting book on cream separators. **Western orders filled from Western points.** Write today for catalog and **see** our big money saving proposition.

American Separator Co., Box 1052, Bainbridge, N.Y.

18 Ever-Blooming ROSE BUSHES

YOURS AS A GIFT For Only 2 Yearly Subscriptions for *American Agriculturist* at $1.00 each. Your own renewal may be sent as one of the two subscriptions required.

No reader can afford to miss this mammoth gift offer — the greatest collection of plants we have ever given.

What can add more to the charm and beauty of your home than bowers of exquisite fragrant roses? Roses breathe sentiment and happiness. No home is complete without this remarkable collection of 5 pink, 4 white, 5 red and 4 yellow roses. One of them is a climber. These rose bushes are guaranteed to reach you in good condition in proper time for planting in your locality.

The entire lot of 18 rosebushes will be sent you, postpaid, for only two yearly subscriptions at $1.00 each. Address

American Agriculturist
461 FOURTH AVENUE
NEW YORK CITY

Coloring Easter Eggs

Using Onion Skins in Making Dyes

LAST Easter, I spent the holidays at my uncle's farm in the Berkshire Hills. The day before Easter, when uncle took his weekly trip to town, my aunt said:

"Now George, don't forget to bring home some Easter egg dye, for I don't know what Bobby would do if he woke up and found no colored eggs in his Easter basket."

It was half-past seven when uncle came home that night. His tired arms were laden with packages which he placed one by one on the table. Suddenly a look of abject terror crept into his face.

"Good lands, Mary," he cried, "I forgot the Easter egg dye. I'll drive right back to town and get it."

"You'll do no such thing," said my aunt laughing, "I'll manage somehow. Come on in to supper—creamed onions!"

A few moments later, a pile of onion skins by the kitchen sink caught my eye.

"By the way, Aunt Mary," I said: "haven't onion skins some sort of harmless dye in them?"

Aunt Mary thought a moment.

"Why, of course! When we were youngsters, mother always colored our eggs with the juice of boiled onion skins. She would write our names on them with a piece of pointed soap and then dip them in the onion juice and they would come out a beautiful golden color. Then she would hide them, and what good times we children would have finding them! We always knew our own for our names were written on them with soap."

So while Aunt Mary washed the supper dishes, uncle boiled the onion skins and I made funny faces on the eggs with a piece of pointed soap. Then Bobby's Easter basket was filled with shiny golden eggs.

Next morning, when Bobby awoke, his delighted scream rang through the house.

"Oh, muvver, come quick and see the be-yu-ti-ful eggs the Easter bunny brung me!"

I smiled. The onion skins had served their purpose well.—I. R. HEGEL.

TWO-IN-ONE DRESS

As clever a pattern as we have ever shown has been chosen this week for our readers. It is both an apron and a dress — two separate garments made from the same pattern, **No. 1620.**

Make the housedress of a plain material with trimmings of checked gingham. The apron is then made of the same checked gingham and buttoned to the dress at the neck and waist.

Then if someone unexpectedly rings the bell, presto! off comes the gingham apron, and you go to the door in a smart, clean dress.

The pattern **No. 1620,** which comes in sizes 36, 40 and 44 inches bust measure, is only **12c** for the two garments. Size 36 requires 2⅞ yards 36-inch, with 1⅛ yard contrasting. Order from Fashion Department, American Agriculturist, 361 Fourth Ave., N. Y. City.

Our new catalogue is as fresh and spring-like as you can imagine. It suggests clever make-overs of last year's clothes or new designs for the fascinating printed and figured materials of this year.

Add 10c to your order for a copy.

FOR THE LITTLE BOY

For the little boy's best—or for everyday, if you prefer—the odd little suit shown in **1627** is something new. Any suitable material would do, though kindergarten cloth for play, velveteen or linen for best are suggested.

No. 1627 comes in sizes 2, 4 and 6 years. The four year size takes 2 yards of 36-inch material. **Price** of pattern, **12c.**

Always write your name and address clearly, be sure pattern number and size are included, and send to Fashion Department, American Agriculturist, 461 4th Ave., New York City.

MORE ABOUT FRUIT STONES

The American Agriculturist reader who asked for advice in planting fruit stones will be interested in the following account:

"When I was a small girl, my people moved to the prairie of Central Illinois. There were no trees or bushes of any kind. One seemed like a fly in a deep dish. All that could be seen was black ground everywhere one looked. The sky and ground met.

"As we had always lived in sight of hills and trees, we missed them. So in the fall, after the first severe frosts, we rode miles to some timber lands, where we gathered two or three bushels of black walnuts, a few sweet acorns and hickory nuts. The nuts were all left in a pile out of doors, to freeze, and crack the shells. In the spring we picked out the nuts that were open on the end. I tied on two planting bags, nuts in one bag, corn in the other. Father plowed a furrow, I walked after him dropping three grains of corn about three feet apart. In the third hill of corn I dropped a nut. The next furrow he plowed so that the sod he turned over covered the corn and nuts. The trees came up nicely.

"Forty years after, a friend sent me some nuts from those same trees, which he said had been bearing for years. Since then I have planted nuts and fruit pits again and again. I always planted them in the ground in the fall and they nearly always came up and grew nicely."—MRS. J. H. BUSKIRK, Lafargeville, N. Y.

FOR THE LITTLE GIRL

Very smart and comfortable too is little Miss Muffet in her cross-stitched frock. Mother can make it in an afternoon, and add the smart stitching which gives it such an air. We suggest black floss on rose crêpe; or delft blue on oyster white linen.

No. 1617 cut in sizes 4, 6, 8 and 10 years. Size 8 takes 3½ yards 36-inch material. **Price, 12c** stamps or coin. (Wrap coin carefully.)

More cunning children's designs in the new catalogue **—Price 10c.** Then there are delightful new spring styles for big sister and for mother too. Not forgetting father and brother. Order catalogue and patterns from the Fashion Department.

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of a prostrating illness is a time of rebuilding of strength and energy, and nothing quite equals rich, nourishing

Scott's Emulsion

of pure vitamine-bearing cod-liver oil as a strength-restoring food-tonic. *Scott's Emulsion is easily digested and helps build up body and strength.*

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We save you 20 to 35 per cent on all standard water or steam pipe and fittings. We pay freight and guarantee satisfaction

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A Modern Bathroom, $55

The "Pride"

Just one of our wonderful bargains. Set comprises a 4, 4½ or 5 foot iron enameled roll rim bath tub, one 19 inch roll rim enameled flat-back lavatory, and a syphon action, wash-down water closet with porcelain tank and oak post hinge seat; all china Index faucets, nickel-plated traps, and all nickel-plated heavy fittings. J. M. SEIDENBERG CO., Inc. 254 W. 34 St. Bet. 7th and 8th Aves. N. Y. C.

Send for Catalog 40

ARECO BLEND **COFFEE 32¢ lb**

In 5 lb. Lots Bean or Ground

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SENT PARCEL POST PREPAID ON RECEIPT OF YOUR CHECK, MONEY ORDER OR CASH

Satisfaction Guaranteed or Money Back

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AT WHOLESALE

Bath and Kitchen Fixtures, Steam and Hot Water Boilers, Radiators, Valves, Pipe, Fittings, Brass Pipe and Fittings, Septic Tanks, Automatic Pumping Systems.

PAUL AYRES CO., Inc., *Jobbers*
386 Jay Street BROOKLYN, N. Y.

Rely on Cuticura To Clear Away Skin Troubles

Soap to cleanse, Ointment to soothe, Talcum to powder, 25c. Samples of Cuticura, Dept. U, Malden, Mass.

THE BEAUTIFUL GLADIOLUS

Send a dollar for 30 bulbs (will bloom this summer), including pink, white, scarlet, yellow, crimson, orange, rare purple, etc., with easy planting directions, postpaid.

Send for free illustrated catalog of over one hundred magnificent varieties.

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Box 351, New Lebanon, N. Y.

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A co... ive, experienced, prompt service for the protection and d... t of your ideas. Booklet of information, advice and form... ing idea, free on request. RICHARD B. OWEN, 94... UILDING, WASHINGTON, D. C.

A Rain Cape for the Girl

THIS is the time of year when rain abounds and mothers often worry about that long, windy walk to school. But the girl who is snugly wrapped in this all-over cape, which the shopping service will purchase for you, can trudge happily along without fear of catching cold.

The cape is made of rubberized sateen, with hood attached. It is a trade-marked "Bestyette" garment, in

sizes which allow for slipping on over a sweater or other coat, and also make it a good investment for several years' wear.

Colors: Red, brown and navy, plain or plaid silk lining.

Sizes: 6 to 14 years.

Price: $1.95, postpaid

Order: From Ready To Wear Department, sending check or money order made out to the American Agriculturist. The cape is R. W. 18. Unsatisfactory goods may be exchanged or returned for refund. In such a case, send the garment to the firm from which it came and notify the Fashion Editor.

A BAG FOR FANCYWORK

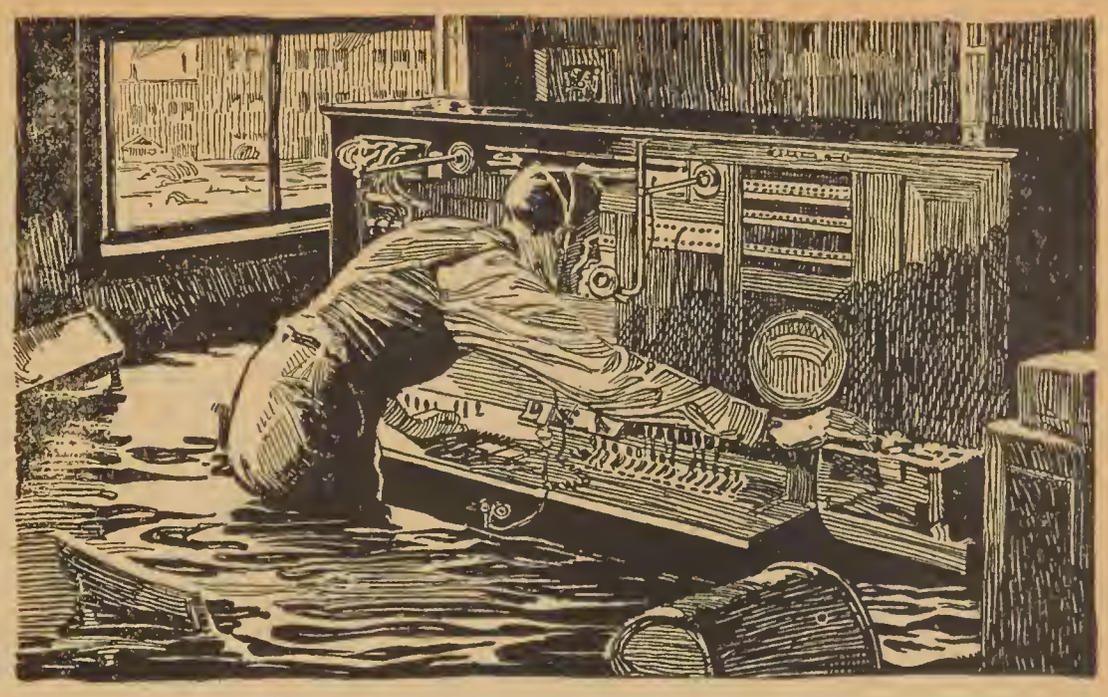
A capacious, smart-looking arm bag, suitable for shopping, for carrying fancy work or knitting, for schoolbooks and lunch, or for a dozen other practical purposes, is made of crocheted jute lined with a bright-colored silk,

and further embellished with handmade flowers in brilliant hues.

A bag like this works up very quickly and makes an extremely effective accessory either for everyday use or special occasions.

Full instructions for making the arm bag will be sent upon receipt of 10c in stamps. Ask for E. 8 and address your order to Handicraft Department.

To plump raisins, place them in a shallow pan in a moderate oven for 10 or 15 minutes. Then add to the batter while warm. Another way to plump raisins is to cover them with hot water for 5 minutes and then drain. This latter method also removes the paper from the seeded raisins.



Why they stick

On the ground floor of the telephone building a man worked at the test board. It was night; flood had come upon the city; death and disaster threatened the inhabitants. Outside the telephone building people had long since sought refuge; the water mounted higher and higher; fire broke out in nearby buildings. But still the man at the test board stuck to his post; keeping up the lines of communication; forgetful of self; thinking only of the needs of the emergency.

On a higher floor of the same building a corps of telephone operators worked all through the night, knowing that buildings around them were being washed from their foundations, that fire drew near, that there might be no escape.

It was the spirit of service that kept them at their work—a spirit beyond thought of advancement or reward—the spirit that animates men and women everywhere who know that others depend upon them. By the nature of telephone service this is the every-day spirit of the Bell System.

The world hears of it only in times of emergency and disaster, but it is present all the time behind the scenes. It has its most picturesque expression in those who serve at the switchboard, but it animates every man and woman in the service.

Some work in quiet laboratories or at desks; others out on the "highways of speech." Some grapple with problems of management or science; some with maintenance of lines and equipment; others with office details. But all know, better than any one else, how the safe and orderly life of the people depends on the System —and all know that the System depends on them.

"BELL SYSTEM"
AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

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DEPT. 193 354 FOURTH AVENUE NEW YORK

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Love's Old Sweet Song
Schubert's Serenade
Kathleen Mavourneen
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Old Folks at Home
Lullaby (Erminie)
Sweet and Low
Auld Lang Syne
In the Gloaming
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Annie Laurie
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Reviewing the Latest Eastern Markets and Prices

JEWISH HOLIDAYS CALL FOR LIVE POULTRY

THE following Jewish Holidays for the year 5683 will bring demand for live poultry as indicated: PASSOVER, April 1 and 2; best market days March 26 to 28; kinds most in demand: Fat fowls, ducks, geese and turkeys. LAST PASSOVER—April 7 and 8; best market days April 2 to 4; kinds most in demand: Prime quality of all kinds wanted. FEAST OF WEEKS—May 21 and 22; best market days May 17 and 18. Very little extra demand for this holiday.

Fat heavy fowls are especially desired for these holidays. Jewish housewives store up the food for cooking purposes for a week or two in advance, causing a run on fat fowls. White Leghorn broilers sold last week around 70c each, and lower for stock under 1 lb. each. Best colored broilers went as high as 80c each.

Long Island spring ducks are now coming in limited quantities, and price last week was 36c lb.

DEMAND FOR APPLES FALLS OFF

The market for barreled apples at New York slumped a little last week, due partly to the poor average quality of arrivals. Fancy, large-sized, well-colored stock is still in demand, however. Wholesale prices per bbl., A grade, 2½-inch stock, were:

VARIETY	Best	Fancy	Ordinary
Baldwins..	$5 @5.25	5.50	$4.50@4.75
Greening...	5 @5.25	5.50@5.75	4. @4.25
N. Spy....	8 @9	10	6 @7

DRIED APPLES—APPLE WASTE

Market for evaporated apples and waste at New York was dull last week. Evaporated in 50-lb. boxes, per lb.: Fancy, 12½c; choice, 11½c; prime, 10c. Apple waste in 100-lb. bags: Prime, 3 @ 3¼c lb.; chops, prime, 3¼ @ 3½c; Pomace, 2¼ @ 3¼c.

POTATO MARKET FIRM

The market in New York City for potatoes continued firm. Supplies were light, due to bad roads up-State. Farmers were looking for slightly higher prices.

Carlots of 150-lb. sacks were not offered freely, market from $2.50 to $2.60, delivered N. Y. City. Bulk quoted $1.40 to $1.50 cwt. As long as bad condition of country roads and car shortage continues, prices are likely to hold up.

Carlot shipments of potatoes from N. Y. State points are now moving more rapidly than at this time last year, although the total for the season is still over 3,000 cars short of last year to same date. Maine shipments so far this season are nearly 8,000 cars short of last season. The total carlot movement of late and early potatoes in the country now is over 5,000 cars ahead of last year.

CABBAGE MARKET STILL FIRM

Supplies of old crop white Danish cabbage continued light from all up-State points, and the market held firm, particularly for fancy, large, sound stock. State white Danish sold, bulk, per ton, in the yards at $60 to $65, on March 15, with a few fancy sales at $70, and some ordinary at $50 to $65.

HAY SHIPMENTS NOW HEAVY

The over-supply of hay at New York, which was anticipated in last week's review, came and brought with it a general decline in market prices. Medium and poor stock showed the greatest weakness and prices were very irregular. It is possible that railroad congestion, embargoes and poor roads in the country may retard shipments so that prices will not drop much lower in the next few weeks, especially on better grades. There will undoubtedly be a general tendency to dump hay on the market in the late spring, however, so it behooves the man who still has hay to sell to watch the market closely. See quotations in center of page.

BUTTER MARKET STRONG

Instead of declining, as might be expected at this time of year, butter advanced last week and closed on March 15 very strong. Receipts of creamery at New York last week were about 10,000 packages behind the week previous. Dealers not only cleaned up fresh arrivals, but disposed of much of previous accumulations. Consumption is good, and there is very little old stock to fall back on. The stock of butter on hand in storage at New York is only about half the reserve stock at this time last year, although receipts since January 1 this year have been greater than in some period last year.

OUTLOOK GOOD FOR CHEESE

Dairymen, whose fluid milk price is affected by the market for cheese, will be glad to know that the prospect is for higher June prices on cheese than last year. The export demand continues active. The increase in the make in Wisconsin has been retarded by recent storms. Stocks of old cheese in the East are light, and were further reduced last week. Total public warehouse holdings in New York, Boston and Philadelphia were less than 2,000,000 lbs. on March 15.

EGG MARKET ACTIVE

With the lower prices of the last week or two, there has been a larger consumption, and the decline in prices has been more gradual than usual at this time of year. No eggs have yet gone into storage at New York, and stocks in the wholesale market have been cleaned out fairly well day by day. Last year, at this time, dealers were holding heavy stocks on their floors so as to put them in storage on April 1 and get an April storage mark.

Wholesale prices on extra fancy nearby hennery whites on March 15 last year were 33 to 36c dozen, compared with a top quotation of 40 to 42c on same date this year. The top price on hennery browns last year in mid-March was 27 to 28c, compared with 38 to 40c this year.

The Easter and Jewish Passover holidays will bring larger demand, especially for large, clean eggs.

Receipts of eggs at New York since January 1, 1923, are over 100,000 cases below receipts last year up to this time.

WOOL MARKET STEADY

Little change was noted in the eastern wool markets during mid-March, Boston and Philadelphia reporting a quiet demand, sales consistent, but in small quantities, and highest quotations on fancy fleeces held with some difficulty. Advices from western country points indicate an increase in contracting for the 1923 clip, which previous to this time has gone slowly. Wool dealers are awaiting the new regulations to come from the government concerning the importation of raw wool to be used for the manufacture of rugs and carpets. Under the new tariff, these wools are admitted duty-free. The government restrictions will be to prevent the diversion of such imported wools to other uses, and at the same time to avoid inconvenience to honest importers.

At Boston, the country's largest wool market, Ohio and Pennsylvania fleeces sold at 56 to 57c per lb. for ⅜-blood combing, 52 to 53c for ¼-blood, 46 to 48c for ¼-blood and ⅜-blood clothing, and 38 to 40c for common. New York fleeces brought 54 to 55c for ⅜-blood unwashed, 52c for ¼-blood. Western ⅜-blood unwashed sold at 55 to 56c, ¼-blood 50 to 51c. Choice Southern fleeces went at 45 to 46c.

MAPLE SYRUP PROSPECT

The price that will be paid for this year's maple syrup crop is of vital interest just now to every man with a sugar bush. One of the largest buyers of maple syrup in the East says that prices to producers will be higher this year, on an average, than last, due to fact that very little old syrup or sugar is being carried over into the new season. It is reported that Vermont producers are generally being offered now for syrup at the farm $1.43 for No. 1, $1.21 for No. 2, and 99c for No. 3. It is generally believed that bulk sugar of the new run will not go lower than 25c per lb.

LIVE STOCK MARKET QUIET

At New York live steers were in light supply; during mid-March prices largely nominal at previous figures. Live calves, however, sold under an easier tone and price, 50c per 100 lbs. lower. Common to choice veals brought 8 to 14c cwt.

Market on hogs, however, was firm for light, medium weight selling at $9.25 cwt. Sheep also in light supply. Prices nominal at $5 to $7 cwt.

FEED MARKET WEAKER

The Buffalo feed market continued dull and weak, and prices on March 14 were $2 per ton lower on oil meal and 25c per ton lower on 36 per cent cottonseed meal than week previous. Mill feeds did not change. Prices on carlots f. o. b. Buffalo in 100-lb. sacks per ton that date were:

Gluten feed, $46.55; cottonseed meal, 36 per cent, $47; oil meal, 33 to 34 per cent, $47; white hominy, $32.05. Grains Buffalo, per bushel. No. 2 oats, 52½c; No. 2 yellow corn, 83½c; barley feed, 73@77c.

BAN ON LIVE RABBITS LIFTED

The restrictions that were placed by the N. Y. City Board of Health on the sale of live four-footed animals received in the New York wholesale markets have been lifted in the case of live rabbits. The regulations never did apply to live stock sold at the 60th Street yards for slaughter in regular packing houses, but were aimed primarily at smaller animals which were frequently slaughtered in butcher shops under such conditions as to constitute a public nuisance. Live rabbits, for which there is a good demand at Easter among Italians and French, may now, however, be handled in the markets as heretofore.

CASH GRAINS AT NEW YORK

The following were cash grain prices at New York March 16:

No. 2 hard winter, $1.32¾; No. 2 mixed durum, $1.23¾; No. 2 yellow corn, 91¾c; No. 2 mixed corn, 91¼c; No. 2 white oats, 56c; rye, 93¾c; barley, 81@82c; buckwheat, $1.92@2.10. At Chicago: No. 2 red wheat, $1.20½; No. 2 yellow corn, 74@74½c; No. 2 white oats, 45¾@46¾c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on March 16:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	39@40	.....	.....
Other hennery whites, extras	38	.....	.....
Extra firsts	36@37	36@37	29
Firsts	35@36	.....	28
Gathered, whites, first to extra firsts	35@37	.....	.....
Lower grades	33@34	.....	.....
Hennery browns, extras	35@36	.....	.....
Gathered browns and mixed colors, extras	32@34	34@35	.....
Pullets No. 1	34@37	.....	.....
Butter (cents per pound)			
Creamery (salted) high score	50½@51	52@53	.....
Extra (92 score)	50	51@52	50
State dairy (salted), finest	48 @48½	47@48	.....
Good to prime	46½@47½	41@46	.....
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$ 24	$20@21	$20@21
Timothy No. 3	22@23	.....	17@18
Timothy Sample	15@17	.....	.....
Fancy light clover mixed	26@27	.....	21@22
Alfalfa, second cutting	.....	.....	.....
Oat straw No. 1	15	.....	15@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	26	26@27	30@31
Fowls, leghorns and poor	25	21@23	26@28
Chickens, leghorns	22@23	23@25	30@31
Roosters	16@17	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	12¾@13¾	11 @14½	.....
Bulls, common to good	4 @ 4½	4 @ 4¾	.....
Lambs, common to good	9½@12½	12 @15¼	.....
Sheep, common to good ewes	3½@ 5½	6½@ 7½	.....
Hogs, Yorkers	9 @ 9¼	9	.....

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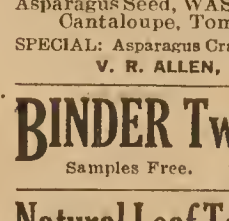

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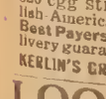

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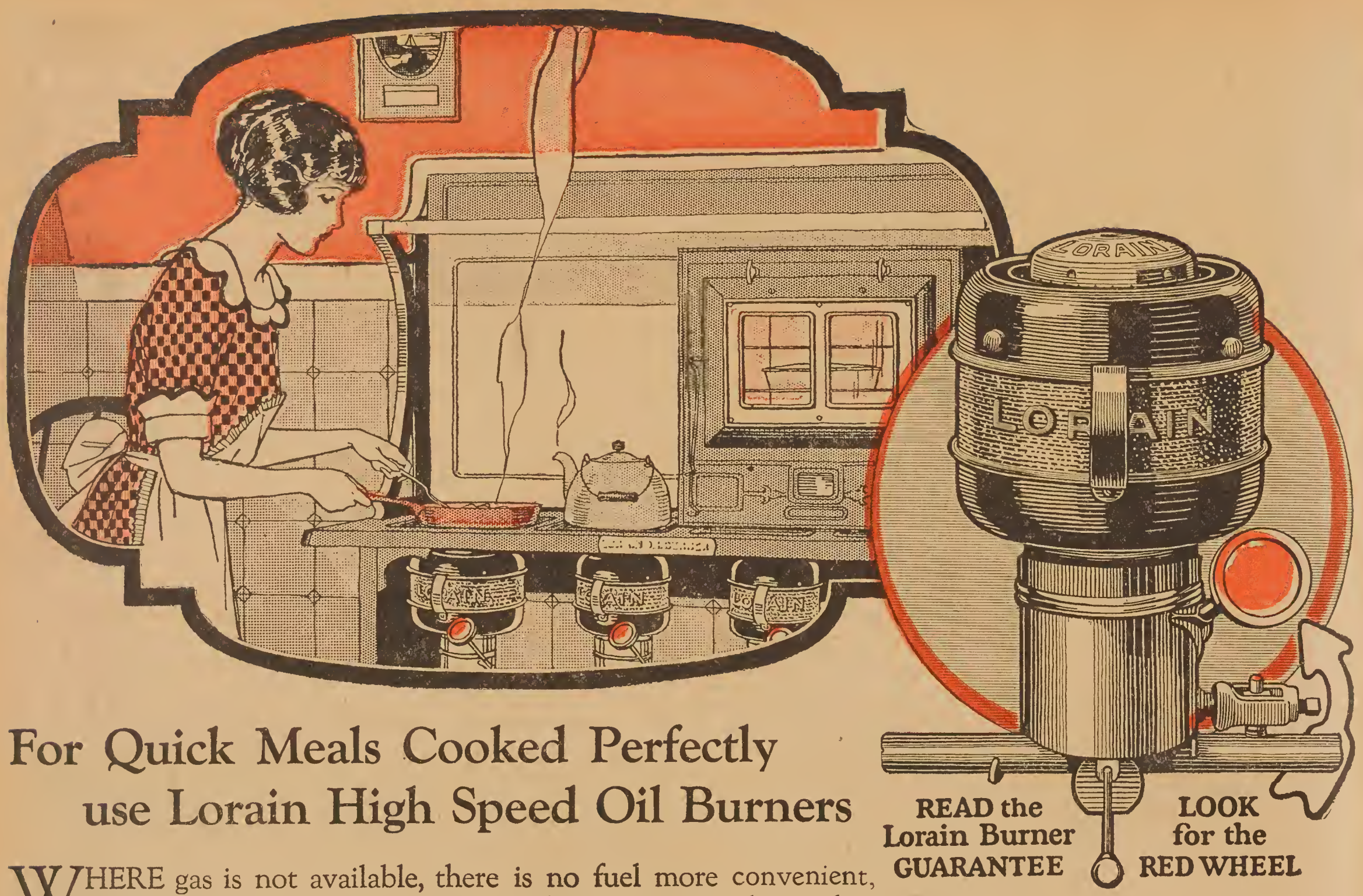

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READ the Lorain Burner GUARANTEE

LOOK for the RED WHEEL

WHERE gas is not available, there is no fuel more convenient, economical and satisfactory for cooking purposes than oil—provided you own an oil cook stove equipped with a good burner.

Of the many types of oil burners on the market, the short chimney type is admittedly far superior. First, because it generates a clean, odorless, blue flame of intense heat. Second, because this intense heat comes in direct contact with the cooking utensil, *not* ten inches from it.

In the Lorain High Speed Oil Burner, American Stove Company firmly believes it has developed the short chimney type to its highest efficiency. For more than ten years stoves equipped with this burner have been in use in thousands upon thousands of homes, and are giving perfect satisfaction.

The Lorain High Speed Oil Burner is thought to be the best of all short chimney burners because of the intensity of its heat—because it is easy to operate—because of the extreme simplicity of its construction—because it does not easily get out of order—and, because it is *durable*. Read the Guarantee.

The Lorain High Speed Oil Burner has many distinctive features. Its vital part, the inner combustion tube, is not affected by the intense heat.

The burner is constructed to prevent "boil-overs" from reaching the wick, and thereby causing wick-sticking. A patented wick-stop, that is always in adjustment, stops the wick at just the correct height for lighting and burning. The oil-chamber is constructed to prevent wick-sticking, and to make re-wicking easy. Only Lorain Wicks are used. They give extremely long life, a steady flame, and seldom require trimming.

Many famous makes of oil cook stoves now use the Lorain High Speed Burner as standard equipment. These stoves are made of the finest materials, and in most every desired size, style and color. Dealers all over the United States sell Lorrain-equipped Oil Stoves. If you cannot locate a dealer near-by please advise us by post card.

BECAUSE the short chimney oil stove burner produces an intense flame which strikes directly on the bottom of the cooking utensil, the heat generated has, in the past, caused the early destruction of its vital part, the inner combustion tube.

This fault has been *completely* eliminated in the Lorain High Speed Oil Burner by making the inner combustion tube of "Vesuvius Metal" which is not affected by the destructive action of this intense heat.

Therefore, American Stove Company now gives the following *unconditional* guarantee with each Lorain Oil Burner.

GUARANTEE

Should the inner combustion tube of the Lorain High Speed Oil Burner burn out within 10 years from date of purchase, replacement will be made entirely free of charge.

IMPORTANT

Every oil cook stove equipped with the Lorain High Speed Burner has one interchangeable Giant Chimney which makes any standard Lorain Burner a Super-heating Giant Burner—an entirely new principle in Oil Cook Stove Construction.

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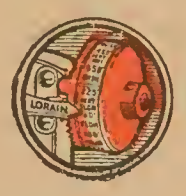

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World's Largest Manufacturers of Cooking Appliances

LORAIN
HIGH SPEED
OIL BURNER

VOL. 111 Founded 1842 No. 13

AMERICAN AGRICULTURIST

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Are Hog Producers Overdoing It?—Page 289

"Where Shall I Invest My Savings?"

Lock the Door Before the Horse Is Stolen—Bitter Tears Won t Bring Him Back

By GEORGE T. HUGHES

IT is about time I had another heart to heart talk with the readers of the American Agriculturist about the money they have saved and what to do with it. It is so easy to make a mistake when some glib-tongued salesman comes along and offers stock in a chain store, a finance company or an oil corporation. And the picture he draws of wealth and prosperity sure to follow purchase of his particular stock so often hypnotizes the unwary and then the money is gone forever. It is too late then to write to the paper and in ninety-nine cases out of a hundred nothing can be done.

So let us begin at the beginning and lock the barn door before the horse is stolen. In the first place bear in mind that it took a long time to save the money you want to invest. If any farmer ever got rich quickly by farming the case has never been called to my attention. On the other hand there are countless numbers who got poor quickly by "investing" foolishly. So take plenty of time before entrusting the money it took you so long to accumulate to someone else to keep.

Take Plenty of Time

And above all do not be deceived by the claim that if you do not seize the particular opportunity the moment it is presented to you it will be gone forever. That is always a lie. The only thing that will be gone forever will be the opportunity to lose in that particular way. It is a favorite device of swindlers to tell their prospective victims that the price of the rubbish they are selling is to be advanced on a certain day. That is an infallible indication of fraud. No good investment opportunity passes in a day, or a week or a month.

Second, leave all new enterprises alone. Even though founded in perfect good faith by honorable and responsible men, the chances on the average are all against success. More business men fail than farmers and all new enterprises are essentially speculative. When you are going to invest you want something that is seasoned. That is something which has proved itself over a period of years and the records of which are easily accessible to the average intelligent man.

The swindlers will tell you how much money you could have made if you had invested in Henry Ford's enterprises when he was an unknown and struggling inventor or how much money you could have made if you had put your savings into Graham Bell's first telephone. That is all true, but for every Henry Ford and every Graham Bell there are a thousand others who lose every cent they put in these new ventures. It is a gamble you cannot afford to take. Leave that to the man who doesn't care whether or not he loses.

An Exception to the Rule

There is only one exception to this rule about new enterprises. If a company is being formed in your own locality to engage in some business, the chances for success in which you are capable of estimating, that is an entirely different situation, but it must be a local enterprise, one you can actually see and one the progress of which you can constantly watch. Do not buy stock in some company the operations of which are conducted one hundred to one thousand miles away, simply because some prominent people in the neighborhood have done the same thing. Because the leading lawyer in the adjoining county seat has invested his money, there is no reason why you should do the same. Perhaps he can better afford to lose than you can. It is another favorite device of stock salesmen to give a list of people in the neighborhood who have succumbed to their wiles. It won't do you any good to have them lose their money.

There are some kinds of stock which are peculiarly dangerous and first among all these is the oil stock. Now whatever you do do not buy any oil stock of any kind at any time anywhere. There is no more uncertain business on earth than oil production, not even agriculture. There are good oil companies whose stock has a ready market, but not even they are suitable investments for a farmer.

Don't Send Good Money after Bad

And if you have been so unfortunate as to put your money into one of these fake oil promotions, don't send any more good money after bad. In the general course of events the unhappy "investor" who has put his savings into one of these oil fakes gets a letter saying the company has gone into the hands of a receiver, but that the investment can be saved and the "assets" conserved by exchanging your stock for stock of some other concern which is going to take over the defunct. The only thing necessary is a small additional subscription. Stop right there. It doesn't make much difference how often you exchange one oil stock of this class for another. One is worth about as much as the other, but money is worth saving. So just because you have lost once do not lose twice.

And do not buy something you cannot sell. Nobody wants a perpetual investment. Some day you may want to realize. You may need money either for the farm or for some unexpected emergency in the home, so you want an investment which you can turn into cash or at least one on which you can borrow. And the best way to find out about that is before you buy any security to go to your local bank and ask the president how much money he will loan you on that security if you buy it. Unless he is willing to loan on it you should not be willing to purchase it. For a banker won't loan money on a stock or a bond which he cannot sell in case the loan is not paid.

The local banker is your best adviser in matters of this kind. He will be glad to help you. And when the stock salesmen tell you that they do not want this particular stock to be monopolized by bankers and Wall Street shut your ears. It is all bunk. They do not want it to be monopolized by the bankers and wealthy men because they know they cannot sell it to bankers and wealthy men. When a man becomes possessed of an overwhelming desire to work for the good of his fellowmen, he doesn't go into the stock selling business. A theological seminary is the place for him.

Finally do not expect too large a return. You cannot get something for nothing in this world and it is almost always true that the higher the return the greater the risk. Just now you can get from 5½ to 6 per cent in sound investments and if you confine yourself to that grade of security you will be better off ten years hence than if you take chances on something that appears to give a higher income.

Now don't hesitate to write to the American Agriculturist if you want information. Very often when a security about which you ask is one of local distribution only, we cannot give any specific advice, but we can and will to the best of our ability try and select safe and conservative securities for the savings of our readers.

Some Typical Inquiries

Financial Department:—Two years ago I purchased some stock in the Crusader Film Corporation, 25 West 43rd Street, New York City. Could you inform me if this company is reliable and if the stock is worth hanging on to? I have never received any interest. The agent says that he will sell my stock for me, but insists that it will be paying big in a very short time.—E. P., New York.

Stock of this kind is speculative in the highest degree and in no way suitable for investment. Unless you can afford to assume the risk involved in the moving-picture business, which even with the best of companies is very high, we think you ought to dispose of the stock if you can.

Buy Something that has a Market

Financial Department:—The Home Correspondence School of Springfield, Mass., are selling a new issue 7 per cent sinking fund preferred stock at $25 a share. Are they good and safe investment to turn called Victory Loan bonds into, or would Pennsylvania R. R. selling at 47 be safer? Also kindly tell me what you think of the Eugene Christian Vitamin Food Company 8 per cent cumulative preferred stock, and the Parry Oil Company stock of Texas at $1.50 per share.—G. K. W., Pennsylvania.

Probably the Pennsylvania stock is the best of the investments you name, but even that is not suitable as a substitute for a Victory loan. Certainly our earnest advice is to avoid all oil stocks. At the best they are gambles and at the worst plain swindles. Also it is impossible to appraise preferred stock of a correspondence school or a food company without an analysis of earnings over a period of years which are not available to us. It is our opinion that your best course would be to reinvest in another Government bond. Assuming you will not take this advice because it is too conservative, we can recommend as a sound investment the preferred stock of the Jones & Laughlin Steel Company, which sells about 107¾, pays $7 a year in dividends and so yields about 6.4 per cent. There is a good market for this stock, so that if at any time you need to use your money you can always get it. Except for the Pennsylvania issue that is true of none of the stocks you speak of.

Look Out For the Sharks!

THE newspapers recently carried a pathetic story of an aged couple who invested and lost $35,000 in worthless stocks. It was every cent they had in the world and all of their lifetime savings. Their money was fooled away from them by the glittering promises of an unscrupulous broker who promised to make them millionaires. The man is seventy years old and blind, and to-day he and his wife are penniless, and were it not for charity, they would be hungry.

It is because the world is full of sharks absolutely without mercy, and full of people who believe that they can get something for nothing that we are constantly printing articles like the one by Mr. Hughes on this page. We are trying to warn our people to keep hold of their money and never make an investment without the advice of a competent lawyer or banker, and without being absolutely sure that their lifetime savings are being put where they will be secure. In almost every neighborhood there is somebody who tried to get rich too quickly and is now filled with hopeless and bitter regret.

Read Mr. Hughes' common sense article and remember it. He is the best financial expert that we can hire and he knows what he is talking about. Following his advice may save you a thousand times the cost of this paper.—The Editors.

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending March 31, 1923** **Number 13**

The Farm Boy and His School

"I Will Study and Get Ready and Maybe My Chance Will Come."—Lincoln

By A. K. GETMAN

BOYS, did you ever stop to think that some day you will have to make your own living? When that time comes you will want to "make good" won't you? Every boy does. You will want to make a good income and get the most out of life for yourself and others. In making good, one of the first things to decide is "what will I do." The kind of work which you pick out will make a big difference in your chances for success. We are not all fitted to do the same things. Choosing your occupation is one of the most important decisions that you will ever make. Mistakes cost money and are a waste of time and effort. Think it over pretty carefully and make sure that you don't make a mistake in picking out your kind of work.

A Boy's Most Valuable Help

Schools furnish one of the most valuable helps that boys have in choosing and preparing for a vocation. Different kinds of schools get boys ready for different kinds of occupations. Some schools give a general training that prepare for advanced courses and colleges, and for occupations later on. Some boys make up their minds much earlier than others as to what they want to do. Many other boys are undecided until they are young men.

A good rule to follow is to stay in school nearest home, until you have made up your mind what occupation you will choose. It would be fine if every boy could be a graduate of a four-year high school course, but at the present time many boys do not finish the high school, in fact, thousands of boys never enter high school at all.

Here are some of the questions that boys ought to consider in deciding on an occupation: What vocation interests me; will my past experience help me to succeed in this vocation; does this vocation furnish continuous employment; are there good chances for promotion; what pleasures can I have when not actually working; what kind of home life does this vocation afford; is it a healthful vocation; what do my parents and friends think of it; how can I get started in this vocation; what are the chances for making a good income; will it provide employment after middle life?

The farm boy in choosing a life work should not forget that while farm experience is valuable training for any occupation, it is especially valuable for farming. Boys born in towns and cities have hard work to get the skill in doing farm work that farm boys already possess.

George Washington said: "Agriculture is the most healthful, most useful and the most noble employment of man." Just now, to be sure, the returns which farmers get for their labors are somewhat low, but in a business so essential to the nation's welfare, conditions will undoubtedly be better.

This boy is learning to identify a good laying hen in trap nest studies at the State School of Agriculture at Canton, N. Y.

Factors to Be Considered

We have had "hard times" before and then came better times. Here are some of the things that we all ought to think about when considering farming as an occupation: Successful farming furnishes continuous employment; provides a good living; affords an ideal home; gives healthful employment; combines the use of capital and labor; enables a man to work for himself and not a boss; enables farmer and son to work in partnership; affords good opportunities for the young man to work gradually into a substantial business.

To be successful, one must accomplish what he sets out to attain, assuming of course that his aim is worth while. A boy may aim high or low. To make good, one must have a "goal." Many people fail because they do not have a goal. Others fail because they do not know how to reach the goal that they have set for themselves.

We Must First Choose a Goal

Every boy can succeed if he will first make up his mind what his "goal" is and then make use of the resources at his command in reaching his goal. To be a doctor, to prepare for the ministry, to be a teacher, to be an auto mechanic, to be a dairy or a fruit farmer are examples of goals. Education furnishes the most valuable resources at your command in reaching your goal.

At the age of twenty Benjamin Franklin walked the streets of Philadelphia a poor friendless boy. Ten years later he was rich and twenty years later he was internationally famous. What was the secret of his success? He tells us one of his secrets in his words "An investment in education pay the best interest." Education pays. Training helps one profit by the mistakes and successes of others. A boy in preparing for an occupation is not training for a day only, but for a lifetime.

A boy who is planning to take up farming cannot afford to neglect his preparation. In farming, an education is much more essential now than it was twenty-five years ago. Not all farmers with an education succeed, but the chances of making good are much greater for the young man who has prepared himself for a life work. The study of agriculture enables a young man to profit by what the experiment stations and the successful farmers have discovered, and what good farmers have found to be a good practice. An education prevents many costly mistakes. It helps one to plan the work, and to work the plan. Men may regret doing all kinds

(Continued on page 295)

A farmer needs to be a good mechanic. These students are learning the skillful use of tools in the farm shop in the Agricultural department of the high school at Afton, N. Y.

Editorial Page of the American Agriculturist

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VOL. 111 March 31, 1923 NO. 13

System of Dairy Recording Needed

NOT the least of the many things that the war did to the dairy business was the elimination of a large number of successful cow testing associations. Some of them had some difficulty in maintaining the full quota of dairies and all found it hard to keep a good cow tester on the job for any length of time. Nevertheless, the interest was continually growing and on this interest it would have been possible in time to have increased the pay for the cow tester, so that better men could have been secured. But the war came and many of the testers enlisted, most of the associations disbanded, and have never been reorganized.

There never was a time when this work was needed as badly as at the present. When times were fairly good, farmers could manage to get along by having their good operations support their poor ones, and their good cows carry the boarders, and still leave a profit; but when things are bad, the poor cows, of course, make them worse.

The cow-testing association enabled a man to put his dairy on a business basis. No other business in the world, except farming, could long endure without a system of accurate records that show where the profits and losses are. Cow testing brings out the relation between what the cow eats and what she returns in milk. It determines the amount of butterfat in the milk, and not the least of its results is that it checks the weights and butterfat tests of the milk dealer. It is a well-known fact that members of cow-testing associations have little difficulty with the milk weights and butterfat tests given by the buyer.

But the old cow testing association was in some ways awkward and difficult in its administration and maintenance. It took too much energy to keep it going. It would seem that there is a real opportunity for somebody to come forward with a simplified plan, whereby dairymen could get a practical check on their dairies without quite so much bother and energy as is required in cow-testing associations. Perhaps there is an opportunity for dairymen through their organization, the Dairymen's League Cooperative Association, Inc., to form, at very little expense, a great dairy improvement association, to which all its members could belong, working on a simple plan and at little cost, to help farmers test their cows and keep simple records of results of the whole dairy and of the individual animals.

Taxes and the School Bill

NO class of people in the world have more reason that farmers to know that there is nothing surer in the world than death and the taxes. Those who live on the land have always paid more than their share of taxes. Land and buildings are tangible property. They never escape the eye of the assessor. Yet in spite of this injustice of too large taxes, the American farmer has always been the first to vote taxes when he saw the real need, and when he was sure he got value received. His willingness to pay school taxes proves this point. School taxes in America have always been large, compared with those in other countries, because from the date when the first settlers landed to the present day, the American farmer has looked upon money properly spent for education as an investment and not as an expense—an investment in the future of America.

Because the farmer is particularly hard pressed at this time with heavy taxes and other expenses, considerable propoganda has been circulated, causing him to believe that if the School Bill now in the legislature, which contains the suggestions of the Committee of Twenty-one, is passed, it will mean heavy additional taxes for him. What are the real facts?

The bill provides for two general financial changes. The first is equalization of the tax rate, and the second is more State aid for rural schools. The present unit of taxation, the district, is so small and the valuation and wealth so great that it is a common thing to find districts that have a true tax rate that is many times as great as the rate in other districts in the same community. These differences are general throughout the State. Their cause is the great difference in the value of the property that different districts have for the support of their schools. To meet this situation it is provided in the bill that the unit of taxation be changed from the district to the community so that the poor and wealthy districts will pool their resources in their efforts to provide their children with schooling.

This change will not mean that any more money will need to be raised than there is at present for the schools. But it will mean that some farm people who have been paying altogether too much for their schools will pay less, and that some others who have not been paying their share will have their rate slightly increased. However, even these will not pay much more taxes because of the features of State aid for country schools which we explain below. There will be those, of course, who are now paying very little for maintaining the country schools who will object to the equalization, but we are sure enough of the sense of justice and fair play among farm people to believe that very few of these will raise any objection to a move that is absolutely just and fair.

The changing of the tax unit from the district to the community does not mean consolidation, nor change in the boundaries of the school districts. They will remain as they are now and can only be changed by a majority vote of the rural people who live in the district affected.

The other financial change proposed in the bill is a larger feature of State aid. The present system of distribution of State money for school purposes is such that the rural districts, are placed at a disadvantage. It costs more to maintain the same grade of school in the open country that it does in the centers of population. The farmer should not be penalized because it is necessary for him to carry on his business under these conditions. To meet this condition, the bill provides for a State fund to help the rural schools. In the raising of this State fund, which would be entirely for the benefit of the rural schools, New York City and other centers of population, which would receive no benefit from it, would pay at least 85 per cent.

Statements have been made that the cities were trying to put this bill over on the farmers. Some of the city legislators have stated that the success of the city depends upon a well-educated countryside and that, therefore, they would favor a bill which would help the rural schools, even though the cities had to pay for most of it. But we certainly fail to see any argument that the cities were trying to impose this bill upon the rural districts when in the first place the recommendations in the bill were made by a committee the majority of whom were farmer representatives, and when, in the second place, the cities would have to pay 85 per cent of the tax for the State aid to the rural districts.

Treating Seed Pays Dividends

SOME years ago when the thought was new about treating farm seeds before planting to prevent disease, we urged a neighbor to treat his seed wheat with formalin to prevent smut. Like most of us with anything new, the farmer hesitated because he did not understand just how to go at it, so we volunteered to help.

For days after that seed was treated and in the ground, we did a lot of worrying and lost some sleep for fear that the medicine had been too much for it, and that it would never come up, and you can be sure that it was with a good deal of thankfulness of spirit that we watched that seed come through the ground with a good stand. It eventually grew into a fine crop and was so clean of smut in a neighborhood infested with it, that the farmer finally sold nearly all of it in the form of seed, considerably above the market price. Since that time, most of us have come to realize that a little labor and attention given to the seed before it goes into the ground may mean a considerable difference in exra yield at harvest time.

It will soon be time for the oat seeding and not long to potato planting time. The process of treating these seeds is very simple and returns often make the small effort required the most profitable work of the whole season. Your county agent or college of agriculture will gladly furnish you with the few simple directions.

What Shall We Do For Blacksmiths?

THERE is a bill in the New York legislature which would, if passed, require a blacksmith to have a three years' apprenticeship and to pass and examination for license before he could practice his trade. This bill might do some good in providing better blacksmiths, but we fear that it would have the effect of greatly lessening the number of which there are not nearly enough now.

The coming of the automobile, with the accompanying need of garage service, has taken the services of hundreds of men of mechanical turn of mind and inclination, who might have become blacksmiths. The farmer's need for the blacksmith is just about as great as ever, yet it is becoming more and more of a problem for farmers to get good blacksmithing service at reasonable prices. A farm shop and a [illegible]ge is one way of partially meeting the [illegible]em.

Are Hog Producers Overdoing It?

All Signs Point to a New High Record of Production During 1923

ARE hog producers overdoing? Are they exceeding the limits of safety in expanding the hog industry? Is the period in the last two years, in which it has been highly profitable to convert corn and other feeds into pork, to be succeeded by one in which the conversion process will show a loss?

To form an intelligent answer to these questions we need to consider:

The rate of increase of hog production; the trend of demand, both domestic and export, for pork and lard; the outlook for feed costs.

High Point in 1922

Pork production in 1922 reached the highest point in the history of the industry. Such is the showing made by the annual estimates of the United States Department of Agriculture, which take into account both slaughter under Federal inspection in the principal packing houses and the uninspected local and farm slaughter. Average weights per head which vary in different years, also are given consideration.

The total output of pork and lard in each of the last five years, according to the Department's estimates, was as follows:

1992	11,492,000,000	pounds
1921	10,570,000,000	"
1920	10,215,000,000	"
1919	11,022,000,000	"
1918	10,869,000,000	"

All signs point to a new high record in production during 1923. For example, the number of hogs slaughtered in the first quarter of the year has been running about 38 per cent larger than in the same period of 1922. This comparison alone is not entirely dependable, however, since slaughter was relatively lighter in the early months of 1922 than in the last three quarters of the year.

The results of several surveys by the Department of Agriculture also point to a substantial increase in 1923. The number of litters produced in the fall of 1922 was estimated to be 18.6 per cent greater than in 1921, and an average of 6.1 pigs per litter were raised compared with 6 pigs a year previous. The number of hogs reported on farms on January 1, 1923, was 9.7 per cent larger than on the same date last year. And, finally, it was estimated several months ago, that the number of sows bred or to be bred, for spring farrow was 13 per cent greater than in the corresponding period of the previous year. Under the circumstances, it seems logical to look for an increase of 12 to 15 per cent over 1922 in the number of hogs available for slaughter in 1923.

Factors that May Help

Various modifications may occur in the actual working out of the situation. Bad weather in the farrowing season may cut down the spring pig crop. A cholera epidemic may reduce the number grown out. Lower prices as compared with corn may diminish the amount of pork produced by stimulating early selling at lighter weights. This is especially likely to occur. On the other hand, if growers should start to curtail production, the sale of surplus brood sows would add materially to the supply of hog product. On the whole, it is doubtful if actual production of pork and lard will increase more than 10 per cent.

If the increase in hog production takes place as indicated, what are the prospects that the demand will expand enough to absorb it without causing unremunerative prices? A five-year average shows that 18 per cent of our pork, including lard, has been exported and 82 per cent consumed at home, illustrating the relative importance of demand from the two sources.

Domestic Consumption in 1922 Broke Record

Domestic consumption of pork and lard, including federally inspected, local and farm slaughter, according to the estimates of the Department of Agriculture, ran as follows in each of the last five years:

1922	9,847,000,000	pounds
1921	9,071,000,000	"
1920	8,740,000,000	"
1919	8,546,000,000	"
1918	8,407,000,000	"

In 1922, domestic consumption reached the highest point on record and was 8.5 per cent greater than in 1921 which, in turn, was practically the largest ever known. Can it be increased an additional 10 or possibly 15 per cent in 1923?

It is probable that most of the variation in domestic consumption from year to year takes place in the towns and cities as it is generally believed that farmers feed themselves first and sell what they have left. The statistics seem to bear out that idea. For example, the uninspected local and farm slaughter, in which the latter is about 8 times as important as the former, has increased only around 5 per cent in the last fifteen years, which is about equal to the increase in the rural population. Domestic consumption of pork and lard slaughtered under federal inspection, on the other hand, has increased nearly 30 per cent in those fifteen years, which is in fairly close proportion to the growth in urban population.

If our analysis on this point is correct, two important conclusions follow:

1. The prospective increase of 10 to 15 per cent in hog production for the industry as a whole will mostly be sent to the chief markets and the product must be consumed mostly in the towns and cities so far as it is used in this country. That means an increase of 15 or 20 per cent in the quantity going into these channels.

2. The domestic demand for the pork and lard from hogs reaching the main market centers, varies from year to year largely with city buying power.

If the present era of business and industrial expansion continues through most of this year and perhaps into next year, as there is some reason to believe it will do, the buying power of city consumers should be higher on the average than in 1922. It is possible to see how city consumption might expand enough to absorb the prospective increase in pork production.

Of course, the public may have been eating its fill of pork in 1922. Perhaps more would not be cared for even if the ability to purchase it existed. Then there is the increased output of beef, lamb, poultry, and even eggs and cheese, all of which, compete more or less with pork. It looks like a large order and we may need an "Eat more everything" advertising campaign.

Southern States Offer Good Market

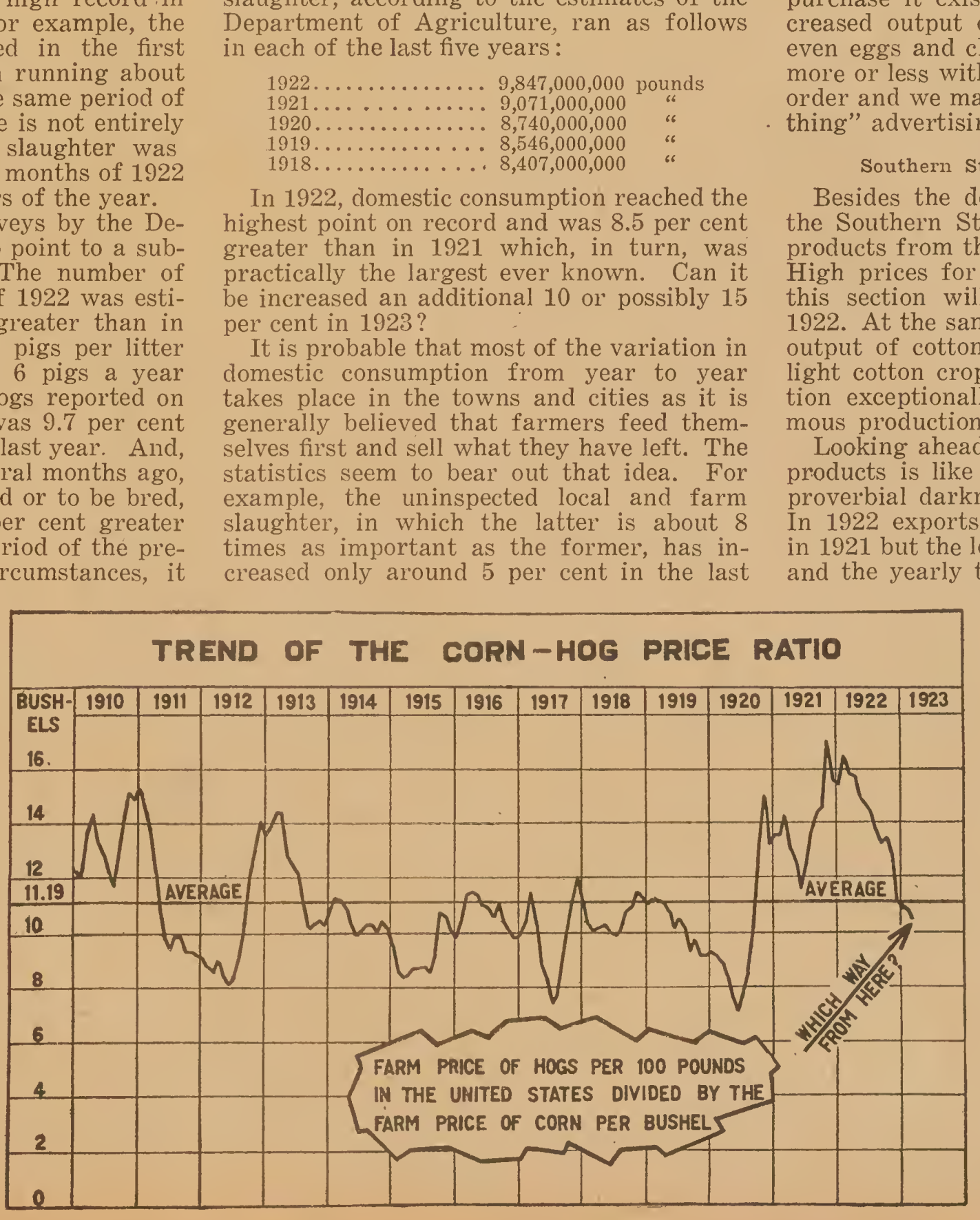
Besides the demand in towns and cities, the Southern States are big buyers of hog products from the principal packing centers. High prices for cotton give assurance that this section will buy more freely than in 1922. At the same time, the reduction in the output of cottonseed oil as a result of two light cotton crops has made the lard situation exceptionally strong in spite of enormous production in the last five months.

Looking ahead in the export trade in hog products is like trying to peer through the proverbial darkness of the inside of a cow. In 1922 exports were slightly smaller than in 1921 but the loss was less than 10 per cent and the yearly total was 50 per cent above the average of the years immediately preceding the war.

Our Best Market Crippled

Germany, our chief customer for lard, is crippled by the French occupation of her chief industrial region. German marks are so debased in value that they are handled in carload lots. Other European countries are handicapped either by industrial depression and unemployment or by near worthless currencies. Besides such matters, Europe owes us much money and must sell us goods rather than buy, in order to pay her debts. Finally, the sale of European securities in this

(*Continued on page 292*)



Farmers Want Market Facts

ONE of the fundamental principles of American Agriculturist is to help our people find better markets for their products. It is easier for most farmers to produce better than they can sell. With this thought in mind, we believe that we can render no more valuable service than to obtain and publish these absolutely reliable fact-packed articles like the one on this page which is readable, interesting and, at the same time, an accurate and complete statement of the hog market situation.

What farmers need is not advice, but facts. Given the facts, they can draw their own conclusions. No producer of hogs on a large or small scale can help drawing conclusions from the facts in this article, which may save him a lot of money.—The Editors.

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Green Manure Problems

There's Something Besides Plowing Them Under

By H. E. COOK

A READER of American Agriculturist recently wrote me asking the following question: "I want to be sure that I am handling my soil problem right. I seeded ten acres of rye and got a heavy stand last fall. I expect a heavy stand in the spring. I contemplate plowing this rye under and putting in cabbage. It is a very good piece of land, light clay loam, although it packs easily when we have much rain. I usually top-dress with about 10 tons of manure and put on 500 pounds of good fertilizer broadcast. I also sowed some sweet clover to plow under, but have not had good luck in getting a crop yet. I intend to sow 12 acres to oats this spring to plow under for cabbage next year. I would appreciate your remarks on this practice."

H. E. COOK

The question concerns a farm practice that is most attractive in theory, but may be most dangerous in practice. The principle involved of adding organic matter to the soil is sound, and very few Eastern soils have enough for their best production. Organic or vegetable matter has little or no value in the soil as a carrier of plant food. It may be a positive damage until thoroughly decomposed, has lost its organic form and is recognized as a part of the soil itself.

Absorptive Powers Beneficial

THEN it has the power of absorption, and not only will give water to the plant during periods of scanty rainfall, but aids materially in releasing otherwise insoluble plant food and making it available to the new growing plants. Often this decomposed vegetable matter, called humus, by the way, is the dominant or controlling factor in plant growth, especially on the sandy and sandy loam soils. Sometimes marked results are obtained on the heavy clay soils for a very opposite reason. In the sandy soils, there is an excess of air. The particles are large and the humus fills in the spaces, and so instead of a sand pile, we have a real soil, the particles joined together through which plant feeding rootlets push their way easily and rapidly. If we have a fairly liberal supply of potash, phosphoric acid, lime and nitrogen, surprising plant growth may be depended upon.

Rye is a king among plants for furnishing vegetable matter. It cannot compete with the legumes in adding nitrogen, to be sure, but as a crude, ignorant source of raw vegetable matter, it stands almost in a class by itself. Now comes the danger. Growth is early in the season, and this heavy blanket of rye turned under, practically shuts off the water supply from below and our whole dependence is from the clouds, not a dependable source at that time of the year. In fact, rainfall enough to thoroughly rot this green growth turned down would probably keep the land so soaked that working it would be out of the question. Furthermore, if it was rotted it could not be incorporated with the soil above by a second plowing early enough to put in a cabbage crop. I have plowed the ordinary sod three times in the spring before cabbage setting, and had a fine crop with a minimum of hand labor. There was, however, no large amount of stuff to decompose.

Must be Mixed with the Soil

AFTER we have an abundance of rotted matter, it cannot function until thoroughly mixed with the original soil. Modern study and practice have discovered ways, not always the means, I regret to say, for completely changing the texture of soils. That is, a sandy soil can be so completely mixed with humus as to become a high-grade productive sandy loam and a stiff clay through tile drainage, the addition of humus in some form and perhaps a dressing of burnt lime, after the other treatment mentioned has been executed, will become a clay loam, the very best soil known for general cropping.

These changes, however; were not made from May 1 to June 15, by any means. Maybe several years were required. Often they become economic as well as technical. That is, we will be able to learn the best methods of making them before we shall have saved money enough to pay the cost thereof. We can no more rebuild or repair a soil without extra expense than we can build a new or repair an old building without capital. And so, if I wanted increased humus for a cabbage crop, I would begin fully one year or more before setting the cabbage plants. There is no one best way to do this work.

Some Alternative Methods

YOU can go ahead with the rye plan and summer fallow the land, by plowing and harrowing during the summer, rather expensive, and would leave the land bare during the winter, with a probable loss of some of the nitrates. Another method would be to cultivate the land to June 25 or July 1, then sow to buckwheat, plowing under the crop before it matures, doing some surface cultivation in the fall, preferably with a disk harrow, which would compact the furrow slice and, to some extent, mix it with the green stuff turned under.

If plowed early, not later than September 1, and harrowed as suggested, also harrowing in the spring again, decomposition will be sufficient to permit plowing about June 1, or perhaps a little later. At any rate, there is plenty of time before cabbage setting. By this method, the organic matter will be thoroughly decomposed, weeds will be destroyed and their roots also converted into humus, some fertility made available that otherwise would not have been, and a real cabbage field ready.

There also might be a chance that you could eliminate the nitrogen from the fertilizer, apply acid rock and potash—a mixture of 400 pounds rock and 100 pounds muriate of potash per acre. If the land needs fertilizer you could use 300 to 500 pounds per acre when sowing the buckwheat. Whether nitrogen should be used at the buckwheat sowing time, I am unable to say. Probably 50 pounds of nitrate of soda per acre in addition to the rock and potash, would be worth while.

Cabbage Needs Uninterrupted Growth

CABBAGE growers know how very important it is to have an uninterrupted growth from planting to harvesting. If the growth is checked after heading is underway for lack of water and this period followed by ideal conditions, there is danger of heads cracking.

Filled with humus, your field will carry a more uniform supply of water than without it, and so have a marked effect on a continued growth of the cabbage. In business, in the use of human energy, in cow handling, in the use of power and machinery, one must have reserve force. In business, it is capital; in human energy, it is good digestion, plenty of sleep and always strength and vitality left after a hard strain; in feeding cows, to so feed and care for them that the production of milk does not deplete their strength, and that all our motive power and machinery used shall not normally be taxed quite up to its limits. Under these conditions, we are ready to meet the unexpected with our reserve forces and sustain the shock or overcome the losses where the weaker ones go down charging their defeat to Providence.

The same application can be made to our soils. If we carry a reserve amount of fertility and humus with good drainage, we can be pretty sure of a crop every year. Of course, yields will vary, but we will always be in the safety zone. I know men who would be successful if the time spent in scolding the weather could be used in increasing the humus in their land and by extra cultivation making potential plant food available.

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Farm News from Albany

Action Has Started on Indemnities for TB Cattle

TWO bills of particular interest to farmers have been introduced, one providing for the payment of cattle already slaughtered having tuberculosis, and the other to pay for the estimated value of cattle to be slaughtered during the year of 1923 and winter of 1924. The total sum made available to pay for these tubercular cattle, should these bills become law, is $5,000,000. At the present rate of inspection of herds of the State, it is doubted if this sum will any more than take care of the two years' work. These two bills, should they become law, will make it possible for the farmers to receive their money very soon after the slaughter of their diseased animals condemned during this year.

* * *

There are several bills introduced called Blue Sky Bills. The object of these bills is to prevent or protect the public from buying so many fake securities, also licensing brokers in such securities, hoping to eliminate many crooks from taking advantage of small investors. The chief argument against this legislation is that it is impossible to use the licensing power of the State without apparently giving the approval of the State to a man or to the securities that he has to sell. As many securities do have more or less value and as most stock investments are more or less speculative, it is feared that the broker will show that he has the approval of the State by having been granted a license. By the use of this license he would be able to sell in many instances to people who otherwise might fear to purchase stock from any source. This is a question which has many angles, and a remedy is needed, because something should be done to protect people from themselves.

* * *

A bill has been introduced adding additional regulations as to the labeling and advertising of substitutes for butter, prohibiting the use of the words butter, creamery or dairy, or the name of any breed of dairy cattle which would lead the public to believe that they were getting a dairy product. Should this bill become law, it will prevent fraud in many instances in the sale of these substitutes, and will strengthen the present law and make prosecution much easier than it is at the present time.

* * *

A bill providing for a bond issue of $15,000,000 for the purpose of improving and extending State Parks and establishing new State Parks and Parkways, in other words, to create a comprehensive and uniform State Park System, has been introduced. If it passes, this bond issue will be submitted to the people of the State for ratification at the annual election this fall. The terms of this bill provide for the amount to be used in connection with each particular park or parks.

* * *

The Senate has passed a bill to abolish the Council of Farms and Markets, and to have the Commissioner of Farms and Markets appointed by the Governor.

The Senate also passed a bill to repeal the censorship of motion pictures. Both of these bills will have to be passed by the Assembly before they can go to the Governor.

* * *

The Judiciary Committee of the Senate held a hearing on the Byrne Bill, which would add a new section to the State Charities Law, requiring the filing of sworn statements with local authorities by corporations or organizations soliciting gifts of money or property. At present many busy men and women feel that they are being misled in making gifts to societies whose purposes they do not fully understand.

* * *

The program before the Legislature for compensation legislation tends to take in more employees of labor. It is very possible, if this is passed, that farmers who have been exempt from the provisions of the Compensation Law may be compelled to carry compensation insurance.

* * *

Some 170 bills are in the Legislature relating to automobiles and traffic regulation of same. Many of these laws have to do with the regulation of the automobile traffic along the lines of Governor Smith's recommendations, which would give the sheriff, his assistants, the State Police and local police greater authority as to the enforcement of the present law and canceling of licenses. An important hearing has been held before the joint Senate and Assembly Internal Affairs Committee upon all of this automobile legislation. At this hearing, many representatives of automobile associations were present to insist upon fair automobile laws.

* * *

A State Canal Barge Commission to determine what type of vessel is best adapted for use on the State canals would be created under the terms of a bill introduced in the Legislature. Another canal bill would provide for the construction of barge canal terminals at Kingston, Newburgh, Poughkeepsie and Yonkers. These bills represent efforts to get something out of the canal worth the investment to the State.

* * *

Assemblyman Witter has introduced a bill which carries an appropriation of $30,000 to help support the Eastern States Apple and Fruit Exposition to be held next fall in New York City.

* * *

The Assembly Ways and Means Committee reported favorably Assemblyman McGinnies' bill appropriating $2,000,000 toward the construction of New York-New Jersey Vehicular Tunnel. This would be New York State's part toward this construction. This tunnel will provide for traffic under the river by automobiles and trucks.

* * *

An interesting bill in the Senate provides "for the giving of greater publicity to the industrial, agricultural, residential and recreational advantages of the State of New York."

* * *

We have before mentioned a bill which provides for the consolidation and unity of effort between the Geneva Experiment Station and the Cornell College of Agriculture. The bill would make Cornell the administrative head of both institutions, but would maintain the work practically as at present, both at Ithaca and Geneva, except that it would stop duplication of experiments and research work. This bill passed the Assembly almost unanimously.

* * *

Senator Rabenold's bill to amend the Conservation Law, providing every hunter and trapper having license to wear a button in a conspicuous place, has passed both branches of the Legislature and now goes to the Governor.

Milo D. Campbell is Dead

JUST as we go to press, word comes of the death on March 22 of Milo D. Campbell of Coldwater, Michigan.

Mr. Campbell, for years president of the National Milk Producers' Federation, had just been appointed by President Harding to the Federal Reserve Board. He took the oath of office for this position on Friday, March 16 as a representative on the Board of agricultural interest. Mr. Campbell was playing golf at Washington with ex-Senator Townsend when he dropped dead. He was seventy-one years old.

No man in America was more sincerely interested in agriculture or has done more for the farmers than Mr. Campbell and he was well known and loved by farmers from coast to coast. Dairymen especially will feel the loss of Mr. Campbell who was an energetic and conspicious worker for better conditions in the business.—The Editors.

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By PAUL WORK

NEW YORK vegetable men, through the New York State Vegetable Growers' Association, went on record in no uncertain terms regarding the elimination of surplus fertilizer analyses and the use of high-analysis goods. At the annual meeting at Syracuse University, March 6 and 7, the Association indorsed the five analyses for vegetables which were presented by Prof. E. L. Worthen and which were approved at the conference of college and trade representatives a few weeks ago. Prof. Worthen pointed out the advantage of buying a 5-10-5 instead of the customary 4-8-4, thus securing an increased amount of plant food without increase in the overhead cost of $13.50 per ton. The Association also indorsed the advertising program which has been undertaken by the Vegetable Growers' Association of America, and which aims to encourage the use of vegetable food through the efforts of local associations. The National plans to supply the locals with posters, lay-outs for newspaper ads, and the like, to be used for such crops and at such times as are likely to be most effective. The G. L. F. was asked to continue its efforts toward the establishment of a vegetable seed service.

PAUL WORK

Officers were chosen as follows: President, R. W. McClure, Syracuse; Vice President, C. E. Haw, Collamer; Secretary-treasurer, T. H. Townsend, Utica; Executive Committee: C. F. Mason, Williamson; L. H. Myers, Albany; Albert Schillroth, Orchard Park; Walter Henry, Eden.

Syracuse Market Prospects

At the banquet of the New York growers at Syracuse, County Agent D. D. Ward told of plans which are taking form for a new market for that city. Syracuse, like many other centers, is assuming increased importance as a distributing point for vegetables. The old market has long been wholly inadequate for handling the city's own supply, and of recent years the crowding has become unbearable. Trucks are crowded in as they arrive, and no alleyways or passages are provided, and one gets out when he can. The new plan calls for the utilization of canal land and also certain adjoining property. The Central New York Vegetable Growers' Association, which comprises the local producers, is actively pushing the project and will have a share in shaping the plans.

Premium List Appears Early

During the past two years Mr. Charles H. Riley of Sennett, N. Y., Superintendent of the Farm Products Department at State Fair, has been instrumental in bringing about a number of marked improvements in the vegetable exhibits. The premium list for 1923 has now been issued. This is as it should be, for the exhibitor may lay his plans in advance of planting time. Also nearly $800 in premiums has been added. Nearly all of the firsts are now between $4 and $10, and the total is nearly $6,000. The offerings are certainly most attractive and the number of exhibitors should show a marked increase in response.

BARLOW LEAVES OTSEGO COUNTY

Floyd S. Barlow, who has been County Agricultural Agent in Otsego County for several years, has resigned to accept the position of field secretary of the Ohio State Guernsey Breeders' Association. During the time that Mr. Barlow was in office, many changes have been brought about in Otsego County agriculture. Improved cropping systems, improved varieties of crops, livestock improvement have all featured his work. One of the noticeable pieces of work inaugurated during his term of office was the Junior Extension program.

Mr. Barlow is succeeded by H. P. Beales, formerly assistant Farm Bureau Manager in Franklin County, N. Y.

Are Hog Producers Overdoing It?

(*Continued from page* 289)

country by which purchases were financed in 1921 and early 1922 have dropped off decidedly in the last nine months. In short, Europe appears to be in a poorer position to buy than at any time since the war ended.

Judged by all such standards, a satisfactory export trade in hog products would not be expected. Nevertheless, in the first ten weeks of 1923, a total of 471,235,000 pounds of hog meats and lard were cleared from the United States, compared with only 326,756,000 pounds in the same period last year. Nor is there any indication that it is going out on consignment. The movement is the result of actual buying.

Will the same rate be maintained or will it be increased or diminished later on? About all we can do is to hope that political conditions will become more settled, that sound finance will displace unsound and that Europe will settle down to work out her economic salvation and in that way be able to buy what food products she needs.

Production Costs Higher in 1923

Prices furnish the court of last resort as to the way a supply and demand situation is working out. In the last six weeks, hog prices at Chicago have averaged about $2 per 100 pounds less than in the same period of 1922. As explained before, however, receipts at the leading markets are hardly likely to show the same increase over last year in the next nine months as they have done since early January.

Quite as important as these matters of prospective supply and demand, is the outlook for production costs. Even if hog prices go lower, if a proportionate drop occurs in the price of corn and other feeds used in pork production, the hog industry may continue to pay big dividends.

Corn prices, however, have shown a distinct upward trend in the last year. On February 1, 1922, the average farm price for corn in the United States was 45.8 cents, rising to 54.8 cents a month later, and to 74.3 cents on March 1, this year. This is the highest since November, 1920. Farm prices for hogs on March 1, on the other hand, were not over $7.75 compared with $8.66 a year ago.

With corn going up and hogs going down, naturally the time honored corn-hog ratio has become much less favorable. The chart on page 289 shows the course of this ratio as measured by farm prices for corn and hogs back to 1910. The decline in the ratio in the last fifteen months has been due mostly to a continuous advance in corn prices. The decline in hog prices has helped. Beginning with January, 1923, the ratio has been slightly below the average.

Such a line does not tell the entire story of profit and loss in corn-hog farming. If corn prices are extremely high, hog prices may show a loss as compared with the price of corn, yet raising corn and feeding hogs may still be a profitable type of farming. This seems to have been the case during most of the period from 1916 to 1919 inclusive, in which the corn-hog ratio was below the average much of the time. Corn-hog farming probably was quite profitable although less profitable than corn farming alone.

On the other hand, in the fall of 1921 when the corn-hog ratio was at the highest point reached in the entire period covered, corn prices were extremely low and hog prices were not high enough to pay cost of production for most of the corn fed.

Corn prices probably are not bringing much if any above cost of production right now and since hog prices

(*Continued on page* 297)

Use and Misuse of Lights

Separation a Factor in Illumination for Poultry

By CRAIG SANFORD

A RECENT article by O. W. Mapes in these columns brought up some interesting questions which, however, when you consider the fundamental principles upon which illumination is based, are quite easy to answer. It must be remembered that the domestic fowl originated in the tropics, where the length of the days and nights were essentially equal. As a result of this, the reproductive and digestive systems were developed to fit this type of environment.

Bringing the fowl from the tropics to the north temperate zone resulted in the hen taking a vacation in the winter time, when she had least to eat and to do. By overcoming the long nights by the right kind and amount of artificial light, feed, water and exercise, the egg machinery is started, and as long as these factors are kept in the right adjustment the machine runs as long as the fuel holds out. Some hens by inheritance have a better type of frame and a larger fuel tank, so these birds lay more eggs per month and keep at it a longer period of time.

In the case of the flock mentioned in the previous article, the production started to drop off heavily in August, and lights were applied in an effort to keep the birds from moulting. At this point the primary object upon which lighting is based was violated. The birds, without lights, were getting 13 hours of daylight. To add to this was not giving the birds natural conditions. It was very much along the lines that if a teaspoon of medicine is good for the patient, it would be even better to take an entire bottle at one time—and it had just about the same results.

Overlighting a Dangerous Practice

Overlighting hens at the end of a long season of production, which has lowered their vitality, always results disastrously. I remember being questioned at a lecture that I was giving one evening as to what would happen if such a thing were done. I answered that if the feeding remained the same that these birds would come back into production way after birds that had moulted in October had gone out of production, and then back in again. Since we have 12 hours of daylight up to September 19, there is no advantage in using lights before that time.

I know of one successful breeder up-State who gives his hens a little light in October, and a little more in November to the hens, that were still laying up to that time. He continued this until the producion of the hens drops to a point where lights are unwarranted. At the same time he keeps in mind these two essential points in connection with illumination:

First—The problems that arise from lights are not in reality lighting problems, but merely questions of feeding. Birds under lights should be fed more heavily of grain than birds that are not under lights. When birds become light in weight, the breaking point in production is near at hand, and if they are not fed correctly at this time the birds will go into a partial moult for repairs.

Secondly—In order to get the best results from illumination, birds should be segregated into groups, according to their age and condition. However, this is not so as to give more or less lights, but rather so that they can be fed scientifically in order that their wants may be fulfilled. For example, in December it is impossible to feed birds that moulted in August the same ration as the birds that just moulted in November and do jusice to both.

August Moulter Ready for Forcing

The August moulter, if you have handled her correctly, has completed her moult, and is just back into laying. She has a surplus of fat and is ready to be forced by protein feeds. The bird that has just gone into a moult has passed through a long period of production and is in poor flesh and low vitality as the result of this strain. She needs a ration that will build up her body and enable her to store up a surplus so that she will be ready to meet the strain of another year's production and supply eggs that will give strong, vigorous chicks. This can be done by feeding heavily of grain and by removing some of the high-protein feeds from the mash.

The College of Agriculture is now recommending some illumination for the breeders. If we are introducing normal conditions in regard to lighting pullets, then why not give the hen the best opportunities to recover? Let nature cause birds to go out of production, but give her more than a nine-hour day to regain her flesh, provided, however, that she is fed correctly. This same problem applies equally as well to pullets in the fall.

Lights for the Pullets

Lights should be given to all pullets in November regardless of maturity, but they should be segregated and fed to suit the needs of the group. The immature birds should be fed to produce frame, the larger birds to produce eggs. Yet in so many cases lights are used to push immature pullets into production before they are ready, and as a result these birds never obtain the right size, and their eggs must always be classed as pullet eggs. To go even farther, these are the birds that, because they are not carrying a reserve, which may be likened to spare parts, break down in mid-winter and require a partial moult to put them back into shape.

In regard to the results Mr. Mapes got from the two pens of breeders and the one pen of culls, I can readily explain why the breeders are not doing very much more than the culls since he sorted these birds. None of these birds, particularly the culls, had done anything since last summer. They had all had a rest, and were in excellent flesh, just waiting for some stimulation to get them started. The addition of animal protein and lights brought them back in short order, since they were now a segregated group receiving the right treatment. It is a well-known fact that even in the poorest of farm flocks that they do well for a short time in the spring. By the use of lights, Mr. Mapes was able to advance his spring, so that the entire flock of both good and poorer birds were thrown into production. However, as the season advances, the cull pen will be the first to drop.

GETTING RID OF RATS IN THE HENHOUSE

A subscriber of the American Agriculturist has inquired how to get rid of rats in a henhouse. The only way we have been able to get rid of the big rats is to shoot them. This is best done in summer, when all feeding must be done in the yards. Get behind a barricade of some kind. The yard wire can be covered with grain bags, and the gun can rest through the wire. I sat all day and shot rats—from sunrise to dark. The next day I made a barricade in the henhouses and shot rats as they stuck their heads through holes in the foundations.

After two days' shooting, the rats did not come into the henhouses or pens, and were pretty well cleaned out. We caught a few middle-sized ones in some wooden-platform breakneck traps in the barn after that, baited with grain. We never could get any in the barrel, or French, trap. It took a year to get a rat that lived under the ell of the house—one that dodged out boldly and caught chickens. One day I placed a large rug in the corner of the piazza, where it joined the house, making the trap as dark as possible and baiting it with a piece of raw chicken. I knew the rat was too big to be held by the trap, so I placed a sharp axe on the piazza, near the trap, and waited.

In a few minutes I heard the trap spring. It took Mr. Rat by the nose, and I promptly cut off his head. He measured 18 inches from his nose to the end of his tail. That is the variety of rats that infested our place, coming from the places of many close neighbors. The rats had got after the grown hens, always attacking them around the vent.

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Price List Prepaid to you	Pure bred Stock 100	50	25
White and Brown Leghorns	$13.00	$7.00	$3.75
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Anconas	14.00	7.50	4.00
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White and Silver Laced Wyandottes	16.00	8.50	4.50
Buff Orpingtons	16.00	8.50	4.50
Langshans	18.00	9.50	5.00
Brahmas	20.00	10.50	5.50

All absolutely first class, pure bred stock. Prompt shipments made. Mail orders to
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of heavy laying quality at the right price. Barred, White and Buff Rocks; Brown, White and Buff Leghorns; R. C. and S. C. Reds; White Wyandottes, Buff Orpingtons and Anconas. We hatch our own Chicks. Circular free. For a square deal, write to the
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1923 Chicks Wh., Br., and Buff Leghorns. 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.

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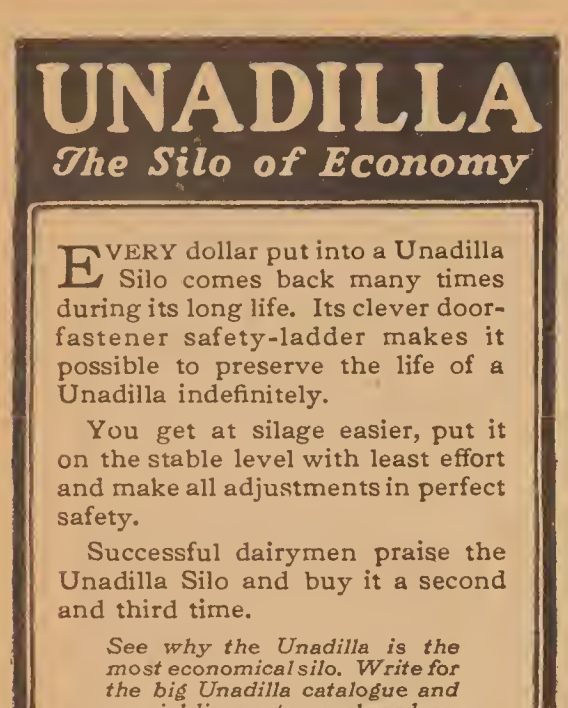

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"MEHRING'S MILKER"

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BE SURE TO SAY "I SAW IT IN THE AMERICAN AGRICULTURIST."

Pennsylvania Farm News

To Organize State Federation of Local Associations

THE first State-wide meeting of farm and cooperative market associations of Pennsylvania was held in Harrisburg, February 20 and 21, and marks the organization of a State Federation. The meeting was called at the suggestion of Governor Pinchot and was held under the direction of Secretary of Agriculture, F. P. Willits.

Over 200 delegates represented the various organizations of the State, of which there are at present over 300. Among the prominent speakers were Governor Gifford Pinchot; Secretary of Agriculture F. P. Willits; J. M. Thomas, President of the Pennsylvania State College of Agriculture; and Mrs. F. C. Black, President of the Society of Pennsylvania Farm Women.

Following the address of the various speakers, Deputy Secretary John McKee announced the personnel of various committees based on the following interests: grain and hay, potatoes, fruit, vegetables, tobacco, horses, swine, beef cattle, dairy, sheep raising, and poultry. The various committees reported to the secretary of the conference during the Wednesday session, announcing their resolutions.

Secretary Willits proposed the organization of a permanent federation of farm and cooperative marketing association in Pennsylvania. A temporary committee was appointed to act upon the recommendation. It reported favorably recommending a permanent committee be appointed. The permanent committee for the perfection of the organization of State Federation of Agricultural Organizations of Pennsylvania was appointed by Secretary Willits as follows: C. J. Tyson, Floradale, Pa.; John A. McSparran, Furniss, Pa.; W. S. Wise, Meadville, Pa; Mrs. Frank B. Black, Garrett, Pa.; R. L. Munce, Washington, Pa.; S. Herbert Starkey, Bustleton, Philadelphia, Pa.; Irving C. Hunt, Wyoming, Pa.; M. H. McCallum, Wernersville, Pa.; A. B. Shenk, Hershey, Pa.; and John M. McKee, Deputy Secretary of Agriculture.

FIGHTING DAYLIGHT SAVING IN PENNSYLVANIA LEGISLATURE

Senator George W. Derrick, of Bedford County, Pa., has introduced a bill in the Pennsylvania Legislature amending the present law establishing Eastern Standard Time as the standard of time for Pennsylvania, which reads as follows:

"Provided that no county, city, borough, township or other municipal subdivision of the Commonwealth shall by ordinance, resolution, or rule adopt a different standard of time for any year or any portion of the year than that herein provided and that all ordinances, resolutions and rules heretofore adopted contrary to this proviso are declared void and of no effect."

The bill has been reported out of committee. It has been recommitted for amendments. The city of Philadelphia has established daylight saving by ordinance. The passage of Senate Bill 217, without further amendment, would end the "moving up of the clocks."

Hearings will probably be held before this measure comes up for a vote.

The Standard Time League in Philadelphia is using every effort to have this legislation passed. It is having some success from other interests who, like the farmer, are greatly inconvenienced and find it detrimental to their business.

EASTERN PENNSYLVANIA NOTES

OLIVER D. SHOCK

The Pennsylvania State Fair Commission has recommended a large tract of land situated in Cumberland County near Harrisburg, as a suitable location for a State Fair Ground.

Winter grains have been benefited by the heavy snows. The total snowfall throughout Eastern Pennsylvania aggregated nearly five feet during this past winter, affording ample protection to crops. Fruit trees are in excellent condition and are reported to be heavily set with fruit buds. An enormous quantity of ice was stored this winter for the coming season's supply. Farmers have harvested an unusually liberal supply, realizing that regardless of quantity of the ice harvested, artificial ice hardly ever shows any decline in price.

It is reported that some Lancaster county farmers will reduce their tobacco acreage, substituting tomatoes in the crop rotation. Lancaster canning establishments are contracting to purchase the tomatoes at $12 a ton delivered at the factories. Farmers who have been making a specialty of growing high-grade corn, oats and potatoes, reported a brisk demand for seed for spring planting and at good prices.

Dealers in radio supplies state that fully 2,500 farm homes in Pennsylvania. are now enjoying this wonderful new means of entertainment. In many homes it is surplanting the phonograph, especially in isolated localities where personal communication is limited.

CENTRAL PENNSYLVANIA NOTES

J. N. GLOVER

Farm sales are in full blast with from one to four every day this month. Cows and hens sell nearly as high as a year ago, but shoats, horses and implements sell for less money than they did last March. Three-fourths of the settlements are made by notes payable in from seven to twelve months at all farm sales this season, showing that farmers are short of ready cash. The highest prices for cows were paid at the E. K. Dyers sale for registered Holsteins, the top price of the sale was $270. The total of the sale amounted to $5,666.

Wheat shows well after being covered with snow for the last two months. Wheat is now bringing $1.35, which is the highest price paid. Only local millers are paying that price, shippers are paying less. There is a greater demand for oats at 45 cents. Not as much fertilizer will be used as last year, except by potato growers who may even increase the amount as well as the acreage in potatoes. Wheat which has been covered by snow for 10 weeks makes a good showing, since the snow melted so rapidly the past few days.

COOPERATIVE LAW GETS GOVERNOR'S VETO IN NEW JERSEY

W. H. BULLOCK

Party politics so dominated the 1923 session of the New Jersey Legislature, which adjourned its regular business on March 17, that except for vetoed measures, many important bills, among them some of the agricultural measures, were carried to defeat. One important farm bill, however, known as Senate Bill No. 64, which would bring the present cooperative law of the State up to date, was passed by both the Senate and the House, but finally vetoed by the Governor. The special session of the legislature held during the week ending March 24 was to consider only those bills which had passed the legislature and had been vetoed by the Governor. The proposed cooperative law was scheduled to come up for action by the legislature at that session. The organized farm interests of the State, however, are not making any determined effort to pass the measure over the Governor's head.

The matter will come up for intensive action on the part of the farm groups next year. In the meantime, the farmers plan to bring the needs of the revision of the cooperative law more forcefully to the attention of Governor Silzer. The Governor's veto was on the basis that the bill was a price-fixing measure, that it was a combination in restraint of free trade and that it was not solidly desired by the farmers. Dr. Frank App of the New Jersey Federation of County Boards of Agriculture refuted the veto message of the Governor and pointed out the fact that the law in its intent was in accord wih the Capper-Volstead Cooperative Marketing Act, which has had country-wide endorsement and that it is patterned after the cooperative marketing laws of 22 States.

Udders Like Silk

BAG BALM heals the injured tissues. Penetrates, softens and restores. Easy to apply; quick results. Heals cuts, scratches, bruises, chaps. Caked Bag. Fine for any sore anywhere. Big 10-ounce package, 60c at druggists, feed dealers, general stores.

SAMPLE FREE to new users if dealer's name is given. Ask for booklet, "Dairy Wrinkles"
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WHEN you can't work because of his lameness the horse costs you for feed and your loss of time—perhaps a lost crop or a skimpy crop through delays. With Save-The-Horse you can cure SPAVIN, Ringbone, Thoropin, or,—Shoulder, Knee, Ankle, Hoof and Tendon Disease **while working.** You take no risk. We give signed **MONEY-BACK GUARANTEE.**

Write today for **FREE** 96-page Save-The-Horse **BOOK,** on how to locate, understand and treat all lameness. This serviceable BOOK, sample of guarantee, and expert veterinary advice—all **FREE.** Over 350,000 satisfied users. Don't hesitate—delay is costly.

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DON'T CUT OUT
A Shoe Boil, Capped Hock or Bursitis
FOR

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will reduce them and leave no blemishes. Stops lameness promptly. **Does not blister** or remove the hair, and horse can be worked. $2.50 a bottle delivered. Book 6 R free.
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HEAVES Is your own horse afflicted? Use 2 large cans. Cost $2.50.
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ONE can at $1.25 often sufficient. In powder form.

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A veterinary's compound for Horses, Cattle and Hogs. Heaves, Coughs, Distemper, Indigestion. Worm expeller. Conditioner. At dealers' or by parcel post.
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Describes cause, effects and treatment; tells how farmers in all parts of U. S. are stopping the ravages of this costly malady.
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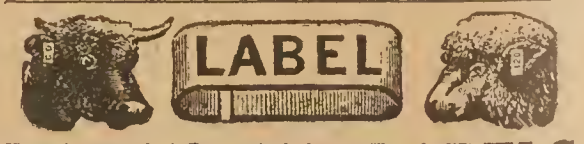

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Are stamped with any name or address with serial numbers. They are simple, practical and a distinct and reliable mark. Samples free. Agents wanted.
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TOBACCO—NATURAL LEAF

Four years old, unexcelled quality and flavor, 5 lbs. chewing, $1.50; smoking, $1.25; second grade smoking, 6 lbs., $1.00; 10 lbs., $1.50. Pay for tobacco and postage when received.

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KITSELMAN FENCE
"I Saved $95.18," says John W. Kemp, Alton, Ind. You, too, can save.
We Pay the Freight. Write for Free Catalog of Farm, Poultry, Lawn Fence.
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5 lbs. $1.75; 10 lbs. $3; 20 lbs. $5. Smoking, 5 lbs. $1.25; 10 lbs. $2; 20 lbs. $3.50. Try it at our risk; money refunded if tobacco returned. COOPERATIVE TOBACCO GROWERS, SEDALIA, KY.

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Chewing, 5 pounds, $1.75; 10 pounds, $3.00; 20 pounds, $5.25. Smoking, 5 pounds, $1.25; 10 pounds, $2.00. Send no money. Pay when received. FARMERS' CO-OPERATIVE TOBACCO UNION, Paducah, Ky.

No Decrease in League Prices for April

THE directors of the Dairymen's League Cooperative Association, Inc., meeting in New York City March 21st and 22nd, determined the price at which April milk will be sold as follows:

Class 1, for fluid consumption, $2.80.

Class 2, for cream and ice cream, $2.20.

Class 3, for milk used chiefly in the manufacture of evaporated, condensed and powdered milk and hard cheese, a differential of 59 cents above the price of milk going into the manufacture of butter (Class 4).

Class 4, for milk used in the manufacture of butter and cheese will be determined as usual by the New York market quotations on these commodities.

There is practically no reduction in these April prices over those received for League milk for March, except that in Class 2, the price is lowered 30 cents, the March price being $2.50 a hundred. In Class 2, slightly higher differentials are to be charged for skim milk which is manufactured into various by-products.

All prices are for milk having a basic butter-fat test of 3 per cent, and at the 201-210 mile freight zone from New York City.

The Farm Boy and His School

(*Continued from page* 287)

of things, but did you ever hear of a man who regretted that he had gone to school too long?

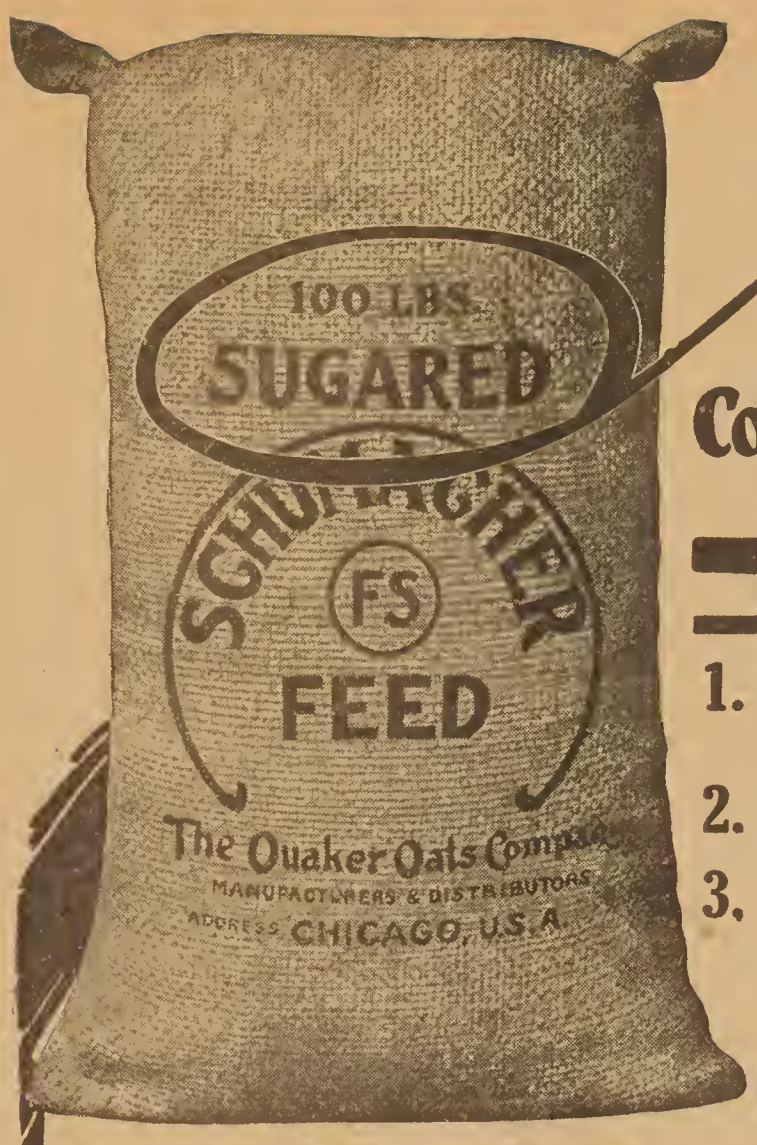
The recent study made by the New York State College of Agriculture showed that an education in agriculture helped farmers make more money. The study showed that among fifty farmers who had about the same amount of capital investment, those who had graduated from a College of Agriculture made three times as much, and those who had completed school instruction in agriculture made twice as much as the farmers who had had no training at all in agriculture.

Save for an Education

To most of us the good things of life come only after we have made some sacrifices to get them. We all have to learn to look out for ourselves. You will learn one of the best lessons of life if you look ahead for your future needs and sometimes forego pleasures to-day in order that you may have better pleasures later on. Most boys begin early to earn money. When you have earned it you can spend it for happiness and pleasures to-day or you may save it to buy desirable things by and by. There is no more important thing for which a boy ought to save than for an education. If a boy has made up his mind that he wants an education that will prepare him for farming, he must realize that such an education will cost money. The fact that it does cost, should not discourage boys from wanting an education, for every year thousands of boys "earn their way" through college or school. The fact that an education "costs" something is one thing that helps to make it valuable.

Saving money is largely a habit. To get the habit one needs to start at once and keep everlastingly at it. Ask your father and mother what they think of the habit of saving.

The State and Federal Governments and many local communities have made excellent provision for offering to boys an opportunity for an education in agriculture. In every State in the Union there is a College of Agriculture offering short term and regular and four year courses in agriculture. In nearly 2,000 high schools practical courses in agriculture are offered to boys and young men who desire to follow farming as a vocation. Also in many States special county or State schools of agriculture have been established to offer practical instruction in farming. The six schools of agriculture in New York at Alfred, Canton, Delhi, Cobleskill, Morrisville and Farmingdale are examples of these schools. The schools are here to serve the boys and young men. If you are interested in farming you cannot, in justice to yourself, neglect to get ready. If you want to know more about what the schools can do for you write to the American Agriculturist.



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Cows Like It

—It Makes More Milk

1. The World's Greatest Carbohydrate Ration—composed of Wheat, Oats, Corn and Barley, combined with Oil Meal, dried Cane Molasses and Salt.
2. Properly balanced—kiln dried and ***exceptionally palatable***—that's why cows like it.
3. Makes more milk because it puts cows in splendid physical condition—enabling them to convert all of the protein part of the ration ***into milk.*** Permits safe feeding of the maximum amount of any protein concentrate you prefer without danger to cows.

SUGARED

SCHUMACHER FEED

Is Noted for its LONG TIME Milk Production

It's digestibility and palatability is assurance against cows getting "off their feed," keeps them at maximum milk producing efficiency ***all the time.*** Its superiority as a maintenance ration is quickly shown in the better physical condition of the herd and consequently a big increase in milk production.

Your Dealer Can Supply You

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GLISTA BULL CALF

Born October 16, 1922

SIRE — Korndyke Pontiac Glista No. 268342, a grandson of the Great Cornel cow Glista Ernstein with seven records of over 30 lbs. butter in seven days. Best record 677.3 lbs. milk, 34.22 lbs. butter seven days.

DAM — Pledge Korndyke Pontiac No. 320068, A R O record, 366.9 lbs. milk, 18.33 lbs. butter seven days, over 4% fat, one of the finest individual animals in our herd. Send for her photograph and be convinced. Calf seven-eighths white and a beauty. Price, $65, registered, transferred and crated. Herd is TB tested.

BRADLEY FULLER, UTICA, N. Y.

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125 cows that are due to freshen within the next 60 days. They are as fine a lot of dairy cows as you could wish to see and are just as good as they look. You can save money by buying now.

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fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.

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LARGE YORKSHIRE BOARS

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Well-grown for their age and vigorous. Ready for immediate service. Priced at farmers' prices.

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Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.50 each; 8 to 9 weeks old, $7.50 each.

Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.

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REG. DUROCS — From prize-winning herd. Premiums from 10 fairs fall 1922. Orion Cherry King and Top Col. strain.
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CHESTER WHITES and O. I. C. Big Type Grand Champion bloodlines. Pigs, $10 each, prepaid. GEO. F. GRIFFIE, Newville, Pa.

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TOM BARRON PEDIGREE STRAIN

S. C. White Leghorns exclusively. Extra fine April Chicks, $20 per hundred; May, $18; June, $15. Free delivery and satisfaction guaranteed.
FEEK'S WHITE LEGHORN FARM, CLYDE, N. Y.

SPECIAL PRICES ON TURKEYS, DUCKS, GEESE, CHICKENS, GUINEAS, HARES AND DOGS. Catalog free. H. H. FREED, Telford, Pa.

ANCONAS. Beautiful, large mottled, Single Comb Breeding Hens, $3.00 each. Pullets, $2.00-$2.50. Satisfaction guaranteed. Address, GEO. SIMMS, LAKE, NEW YORK.

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Single Comb Reds, Anconas, White and Brown Leghorns; from pure-bred, free range breeders; that are bred for color, vigor and high egg production. Circular.
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AN hotel where old fashioned courtesy still prevails. One of the best known hotels in the metropolis. Convenient in shopping, theatres. Less than 50c. taxi fare (one or more persons) from either railway terminal. Surface cars pass door.

PRICE FOR ROOMS

50 Single rooms	$2.25 per day
100 Single rooms	2.50 per day
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Single rooms, with bath,	4 per day and upward
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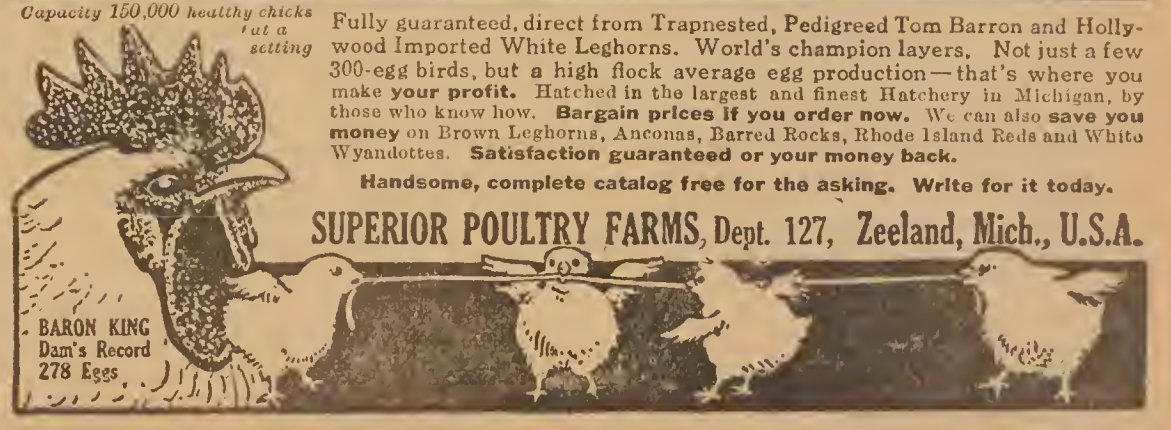
POPULAR PRICED CAFETERIA AND REGULAR RESTAURANT

During the Winter Season the balconies surrounding the Sunken Palm Garden are enclosed in glass. GEORGE C. BROWN.

High Producing Vigorous Pure Bred Baby Chicks

Capacity 150,000 healthy chicks put a setting



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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

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The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

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Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

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EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

CERTIFIED S. C. WHITE LEGHORN CHICKS AND EGGS. High pedigreed, trap nest stock, 208 to 302 egg hens mated to 300 egg males. Member of New York State Cooperative Poultry Certification Association Inc. Reference Second National Bank. E. DELAMARTER, Elmira, N. Y.

REAL RED REDS, Single Comb, pure bred, deep, rich, red, vigorous Cockerels and Pullets; three, four, five dollars; satisfied customers. MEADOWBROOK FARM, Route 3, Box 210, Lancaster, Pa.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

ROSE COMB RHODE ISLAND RED COCKERELS, bred for color and egg production, shipped on approval, write, H. M. PIERCE, R. 3. Franklinville, N. Y.

S. C. BLACK MINORCAS, pure bred with size, quality and production. Eggs 15 per $1.50; 50, $4.50; 100, $8.50. H. C. STALEY, Route 6, Delaware, Ohio.

SINGLE COMB WHITE LEGHORN HATCHING EGGS, from two year old stock, Wycoff strain, $2 for 24; $7 per hundred, delivered. ALLAN MORTON, Ashville, N. Y.

DARK ARISTOCRAT BARRED ROCKS exclusively. Eggs, $9 100; Pens, $3 and $5 per 15. Fertility guaranteed. HILLCREST FARM, St. Joseph, Ky.

ROSE COMB PURE BRED RHODE ISLAND RED EGGS. Prize winning birds. $2 per 15. EMMA NORTHROP SMITH, Greene, N. Y.

SINGLE COMB BLACK MINORCAS, Great layers, Cockerels and Hens eggs, 15, $2; 100, $8. THOMAS EBERSOL, Carrollton, O.

ROSE COMB RED HATCHING EGGS, the dark-red kind, Sprague strain, $2 per 15; $5 per 50. R. A. LITTLER Tiffin, Ohio.

FOR SALE—Pure bred Ancona laying hens. Young stock. Fancy strain. $2.50 each. HENRY SCHLEUTER, Saxton, Pa.

GOLDEN AND SILVER WYANDOTTES-EGGS, $2 per 15, from extra selected stock. J. L. HOAK, Spencerville, Ohio.

PURE VERMONT MAPLE PRODUCTS of highest-quality. Circular and price list free. HILLSDALE FARM, Glover, Vt.

PEARL GUINEAS. White Wyandotte, Mammoth Pekin Duck Eggs. LAURA DECKER, Stanfordville, N. Y.

HATCHING EGGS, S. C. Buff Orpingtons, $2 per 15; Jersey Black Giants, $3. T. BOWLBY, 901 East Ave., Elmira, N. Y.

FOR SALE—Mammoth Toulouse Goose eggs, 40 cents each, postpaid. CHAS. D. PAXTON, Rt. No. 5. Zanesville, Ohio.

FOR QUALITY S. C. ANCONA eggs or chicks, write, C. V. McMAHON, Marathon, N. Y.—Folder Free.

FOR SALE—Silver Campine hatching eggs, $10 per 100. Good stock. E. D. PREY, R. D., Ellendale, Del.

WHITE LEGHORN QUALITY CHICKS. Superior layers. Write NELSON'S, Grove City, Pa.

SILVER CAMPINES, wonder bird. Eggs, chicks. MAPLE LAWN FARMS, Cortland, N. Y.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

ROSE COMB BROWN LEGHORN EGGS, Reasonable. MAPLEWOOD, Navarre, Ohio.

TOULOUSE GEESE, ROUEN DUCKS. CRANE BROOK FARM, Port Byron, N. Y.

BOURBON RED TURKEY EGGS $5 per 10. GEO. LEHMAN, Amaranth, Pa.

BUFF ROCK COCKERELS — EDGEWOOD FARM, Ballston Lake, N. Y.

EGGS AND POULTRY

LIMITED NUMBER CHICKS from Cornell, certified and registered stock, 250-egg strain. Large white eggs (no tinted ones) from large fowls. Price list free. EDNA COYLE Branchport, N. Y.

BABY CHICKS—Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

TURKEYS

NICE PAIR HEALTHY MATURE TURKEYS, very tame and good breeders. $20. H. A. HAIGHT, Barker, N. Y.

BEES

HONEY—Nature's own sweet, 6-lb. early honey, $1.30; 6-lb. buckwheat, $1.15; 12-lb. buckwheat, $2; prepaid first three zones. I. L. BARTON, Townville, Pa.

HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, North Branch, N. Y.

CATTLE

WANTED — 16 cows, big producers. TB tested, fresh or soon, on easy terms. Address, W. A. M., care AMERICAN AGRICULTURIST 461 4th Ave., New York City.

REGISTERED JERSEYS. Bargain. Two good young bulls $50 each. Fine 17-months old heifer, $125. HENRY INGALLS, Greenville, N. Y.

FOR SALE—Registered Guernsey cows, heifers and a bull one month old. RAY D. LEVAN Catawissa, R. 4, Col. Co., Pa.

DOGS AND PET STOCK

FOR SALE—King Richard, Handsome Welsh stud pony; 43 inches high; 6 years old; dark bay; well broken to saddle and harness. Stock breeders opportunity. Write for information. MYRTLE L. DAVIS, R. F. D. No. 2., Newton, Pa.

THOROUGHBRED FOX HOUNDS and English Beagles, any age. Alsa Columbian Wyandotte eggs from first prize winners, $2 per 15 or $8 per 100. D. C. KALTREIDER, Red Lion, Pa.

COLLIE PUPS—Purebred females from very intelligent, grand working stock. Shipped on approval. $7. WM. W. KETCH, Cohocton, N. Y.

COLLIES, beautiful females, sable and tricolor. JOHN D. SMITH, Walton, N. Y.

FLEMISH GIANT RABBITS, Exclusively. T. A. WILSON Marion, N. Y.

AGENTS WANTED

AGENTS WANTED—Agents make a dollar an hour. Sell Mendets, a patent patch for instant mending leaks in all utensils. Sample package free. COLLETTE MFG. CO., Dept. 210, Amsterdam, N. Y.

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

MALE HELP WANTED

RELIABLE MAN WANTED to take orders for fruit and ornamental trees, shrubs, roses and seeds. Opportunity to become District Superintendent. Pay weekly. Equipment free. FRUIT GROWERS' NURSERIES, Drawer G., Newark, New York State.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

SEEDS AND NURSERY STOCKS

STRAWBERRY — Black Raspberry Plants. Wait! Don't order your plants until you get our prepaid prices. We can save you money and furnish the quality. F. G. MANGUS, Pulaski, N. Y.

DAHLIAS—$1.50 per dozen, labeled; $2 per 20, not labeled. Decorative, peony, show cactus. Circular; also white Eskimo puppies, $15 and $20. MRS. HOWARD HOLSINGER, Denton, Md.

DAHLIA BULBS—Beautiful varieties named twenty cents each; double hollyhock seed, choice, red, white and pink, packet ten cents. J. CALLENDER, Skaneateles, N. Y.

SEED OATS—Cornelian and Empire Varieties. Recommended by New York State College of Agriculture. Write for prices. J. CORYELL, Ithaca, N. Y.

PROGRESSIVE AND FRANCIS EVERBEARING STRAWBERRY PLANTS, $1.60 per 100; $10 per 1000. BASIL PERRY, R. R. 20. Georgetown, Delaware.

FREE SEEDS—Hollyhock, dahlia, double poppy, with four dahlias, cactus, decorative or show, 50c. OLIVANNE DAHLIA GARDENS, New Bedford, Pa.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

SEED POTATOES AND SHADELAND CLIMAX OATS, White Grant and Russet Best to yield or cook. M. L. GLASGOW, Glasgow, Pa.

40 LARGE, mixed gladiolus, or 20 purple and light-pink Dahlia bulbs $1 postpaid. HOWARD GILLETT, Stanley, N. Y.

FOR SALE—Selected seed corn, variety, Angel of Midnight, price, $2.50 per bu. C. F. WHEELER, Mannsville, N. Y.

DAHLIAS—Dark red, 75c per dozen, pink and mixed colors not labeled $1 per dozen. S. S. SHIELDS, New Bedford, Pa.

STRAWBERRY PLANTS. Choice stocky plants at fair prices, catalog free. H. H. BENNING, Clyde, N. Y.

RAW FURS AND TRAPPERY

LET US TAN YOUR HIDE—Cow and Horse hides for fur coats and robes. Cow and Steer hides into Harness and Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

MUSKRAT FURS WANTED FOR COATS. High prices paid. EVERETTE SHERMAN, Whitman, Mass.

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

CATTLE BREEDERS

FOR SALE—Bull Calf descendant of the great Cornell Cow Glista Ernestine with 7 records of over 30 lbs. See records in my ad in Live Stock columns this issue. BRADLEY FULLER, Utica, N. Y.

SWINE

FOR SALE—Registered Chester White Swine. All ages, write your wants. ORCHARD SLOPE FARM, R. D. 4, New Castle, Pa.

REAL ESTATE

62 ACRES, good soil, close to church and school, near good markets, hard surface roads, two farm houses near bank, barn all equipped with electric lights, pipeless furnace in one house; 8 cows; 4 horses; full farm machinery; 800 bushels corn; 150 bushels oats; 100 chickens, good spring water, will stand investigation. One Ford car. FRANK BALSBAUGH, R. 1. Harrisburgh Pa.

SALE BY OWNER. Dairy farm 118 acres; river flat, one-half mile from railroad town high school, bank, borders Macadam road. Good buildings $11,000. For full particulars address, K, Lock Box 1, Nichols, N. Y.

FOR SALE—110 acres; good buildings; orchard neverfailing water, gas fuel, two-thirds improved, one-third good timber, terms reasonable. M. J. McKISSICK, Fertig, Venango Co., Pa.

POULTRY FARM in beautiful Chemung Valley; 28 level acres, equipped for 700 hens; railroad village, school, churches, macadam, trolley, one mile. OWNER, Box 123, Chemung, N. Y.

FOR SALE OR EXCHANGE for real estate; 60 barrel flour and feed mill. A-1 condition. For information write, WEST LOUISVILLE MILLING CO. West Louisville, Ky.

WANT SMALL JERSEY OR CONNECTICUT farm equipped or green house plant near N. Y. Full particulars first writing, price and terms. F. UNSER, Mineola, L. I.

MISCELLANEOUS

PRINTING—Letterheads, billheads, envelopes, circulars. Write requirements. Samples free. FRANKLIN PRESS, B-28, Milford, New Hampshire.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

FOR SALE WHITE SWEET POTATOES OR YAMS—the baking kind, $1.25 per bushel F. O. B. by express. G. L. ELLIS, Millsboro, Del.

FOR SALE—6 H. P. gasoline engine, fine condition; well built, long bearings, upright. $50 FRED UNSER, JR., Mineola, L. I.

CANDY—2½ lbs. delicious fudge, caramels and taffy. Try a box; $1 postpaid. CRYSTAL SPRING FARM, R. D. 2. New Paltz, N. Y.

SERIAL STORIES FOR SALE. 12 cents buys complete story. List sent on request. EDMUND GUSTAFSON, Pawling N. Y.

FOR SALE, International Harvester Company tractor 12-25 H. P. in first-class condition. D. E. PAGE, Perry, N. Y.

150 NOTEHEADS, 100 white envelopes printed and mailed $1. Samples printing free. SUNCO, Mohawk, N. Y.

FOR SALE—Maple Syrup, $1.90 in gallon cans. Special prices on Bbl. lots. GEO. BUSH, R. 2, Box 26. Croghau, N. Y.

GUMMED MAPLE SYRUP LABELS; 35 cents 100; $1.50—500; $2.85—1,000. GORDON B. SMITH, North Creek N. Y.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

MILK TICKETS a specialty. Samples free. BONDS PRESS, Middletown, N. Y.

UNLEACHED—Ashes. GEORGE STEVENS, Peterborough, Ontario.

An Ad. Like This Costs You Nothing!

This ad. is 20 Words

FOR SALE—Ayrshire calves, both sexes, of high production breeding at farmers prices. EDWIN HARADON, Route 4, Corning, N. Y.

And Over 120,000 Folks Read It

This offer is restricted to advertisements of cattle, sheep, swine and horses and is good if mailed to us before April 5, 1923.

Classified Department, *American Agriculturist*, 461 Fourth Avenue, New York

Please insert the following advertisement in your classified department in your next available issue. This is in accordance with your special offer and it is understood this is to be free of charge.

*Name*_____

*Address*_____

Not a Cent To Try a Gallon Not a Penny

Kill Lice and Mites

Years of experience have developed and established MEPH'S reputation as sure insect killer,

DRIVES AWAY FLIES AND MOSQUITOES

MEPH contains Soluble Sulphur, highly preventative of both infection and reinfection, and heals insect bites

MEPH is used on

Poultry, Horses, Cattle, Hogs and Pet Stock

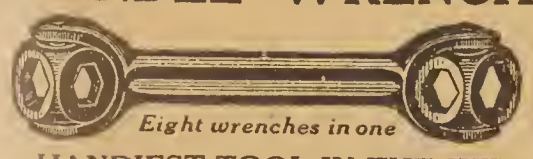
Very effective in cleaning or spraying your hen houses, coups, stables; keeping them sanitary and free of vermin, Mixes easily with whitewash, also with water,

Just say that you want to try this dip, A trial can will be shipped to you immediately, that makes from 50 to 100 gallons of solution, the best you ever used,

When you find it all that it is represented to be—then and only then, send $2.50 for the gallon to

MEPH CO.
160 South St., New York, N. Y.
WRITE NOW

HANDEE WRENCH



Eight wrenches in one

HANDIEST TOOL IN THE KIT
A turn of the end and up comes the size you need
Sent post paid $1.00
Agents wanted in all territories
ACCESSORY SUPPLY COMPANY
Indianapolis, Indiana

$1,000 Secures Dairy Farm

255 Acres with 20 Cattle, 3 Horses, gas engine, cream separator, manure spreader, implements, tools, household furniture; just bring your suit case, move right in and be ready to plant this spring; just outside lively village; good markets; machine-worked fields, 35-cow spring-watered pasture, estimated 100,000 ft. timber, 1,500 cords wood; 1,000 sugar maples; excellent 7-room house, running spring water, bath, 70-ft. basement barn, stable, etc. To settle affairs $4,000 gets all if taken soon; only $1,000 needed. Details page 138, Illustrated Catalog—Bargains many states. Copy free. Address me personally. **E. A. STROUT, Pres., STROUT FARM AGENCY, 150 R Nassau Street, New York City.**

BUY YOUR CIGARS DIRECT—FIFTY HAND MADES prepaid, $1.50. Agents wanted. HAVANA SMOKEHOUSE, HOMELAND, GA.

New Advertisers in this Issue

Maloney Bros. Nursery Co.
William M. Mehring
Tauber Brothers
Talloid Music Service
Farmers' Exchange
Keystone Hide Company
United Tobacco Growers
W. R. Hart, Farmers' Plant Co.
R. M. Hanna
Havana Smoke House
The Hough Hatchery
Canfield Hatchery
K. H. Spooner
Authorized Breeders' Assn.

IF YOU SAY:

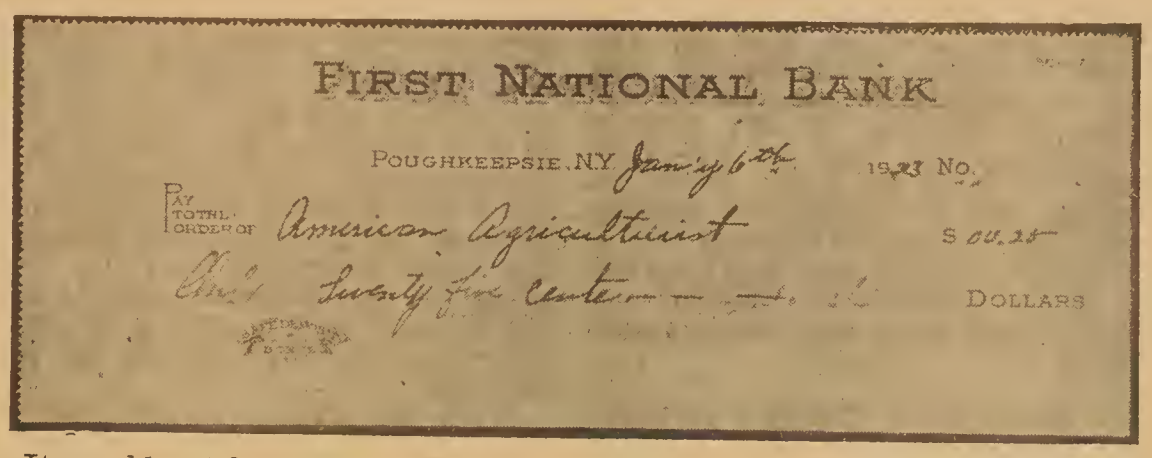
"I saw your ad in the *American Agriculturist*," when ordering from our ad... you will benefit by ... to refund the pri... chased by any s... advertiser who ... the article pur... be as advertised. ... you insure

Beware The Check Raiser!

Recent Matters Handled by the Service Bureau

MORE and more it is the custom to pay bills by checks, and this is a custom which may well be encouraged, because the very fact that a man has a bank account shows that he is a reliable person to trade with. In addition, the return of the check is sufficient proof that the bill has been paid. This method of handling money is usually satisfactory on both ends of the transaction.

However there are opportunities for mistakes and misunderstanding which do not occur in other methods of transfering money. Thousands of dollars are lost each year because of the prevalence of clever swindlers. The time has passed when men carelessly made out checks in pencil. Naturally the entire legend could then be erased and a larger number of dollars written in. Legibility however is sometimes sacrificed. On the check shown here, it was chosen at random from several thousands received in this office, the words 25c might easily be interpreted as 75c and the numerals also could be altered. In this case, the signer of the check would be out only 50c, but it might have been dollars and he would not have escaped so easily.



FIRST NATIONAL BANK

POUGHKEEPSIE, N.Y. January 6th 1923 No.

PAY TO THE ORDER OF American Agriculturist $ 90.25

Twenty five cents DOLLARS

It would not have been difficult for a clever penman to raise this check $90.25. The word "twenty" would also be easy to manipulate

In making out checks therefore always be sure that no room is left before the dollar sign and the numerals for the insertion of another figure, (in the picture for instance you will see that a one could easily have been put after the dollar sign making the check read $100.25). Also be careful that the words when written out, completely fill the space or are preceded and followed by dashes, or some other method of filling in the blank space.

It pays to take a little trouble, for the check raiser appears where he is least expected and there is seldom any way of bringing him to justice. Recently a prominent bank official stated that at least a million dollars was annually lost by the small depositors of the country through this method of trickery.

$28 FOR PASTURAGE

"Just received check for $28. Thank you for your trouble." Mrs. F. L. of New York State pastured four cows for a man who failed to make payment. Although this was a legal collection claim, we were able to aid Mrs. L. in pressing the matter through her attorney, and, as a result of our joint efforts, she received the money.

A DEPOSIT REFUNDED

A New York department store accepted a $10 deposit from Mrs. J. A. of New York, and, after some time, sent word that because she had not sent the balance she would have to forfeit the money.

Mrs. A. wrote asking that the curtains be sent balance collect, but nothing further was heard from the store, so she referred the matter to us. On the suggestion of the Service Bureau, the store immediately refunded the deposit and apologized for the delay and inconvenience.

AFTER FOUR YEARS OF EFFORT

It took a long time for an Ohio Manufacturing firm to refund $10.83 which had been paid them in 1919 by our subscriber, Mr. D. E. Johnson, of Reynoldsville, Pa. However, the Service Bureau established the fact that Mr. Johnson had made this payment and brought to the attention of the company the date and the circumstances. Although they claim that they had not been able to trace the matter and had stopped answering Mr. Johnson's letters, they immediately settled up when the magazine took a hand. Mr. Johnson has written us that a check for the full amount reached him and that the delay of the last four years has finally been ended.

Are Hog Producers Overdoing It?

(*Continued from page* 292)

are not quite high enough to pay for the average amount of corn, the hog grower should consider which way the ratio line will go in the next twelve or eighteen months. Will it rise above the average again or stay near its present level or drop considerably below the average as it did in 1912 and 1915 after the previous high points?

Taking the probable trend of corn and hog prices in the next six months into consideration, the evidence suggests that the ratio will show but little change of position for a while, but is more likely to go lower than to rise above the average. By the end of 1923 when the increased spring pig crop begins to come on the market, it might drop considerably below the average unless there is an unusually large corn crop or hog production fails to show the increase indicated.

If this expectation is correct, what does it mean to the hog grower? Are the following conclusions justified?

1. This is not the time for general and indiscriminate expansion of hog production.

2. Since the cost of producing pork varies greatly in different localities or on different farms in the same locality, it is advisable for all to keep their cost marks as low as possible by the use of improved blood, scientific feeding, sanitation to prevent losses by disease and similar means.

3. Those hog growers whose production costs are low, and who can make money with hogs when the average breeder is losing, have nothing to fear. They can go ahead sawing wood as usual and avoid the loss from liquidating breeding stock, leaving equipment unused or altering the type of farming.

4. Those whose costs are relatively high had better "watch a little out" and perhaps breed fewer sows for fall litters. This is the class that must decrease production if it develops that overexpansion has taken place.

I have taken the American Agriculturist for over five years, and couldn't get along without it.—JOSEPH L. CLARE, Niagara County, N. Y.

You can sell lightning rods

You need no sales experience to establish a profitable business of your own selling R. H. Co. Lightning Rods. They have been giving perfect lightning protection for 74 years, and bear the official approval of the U. S. Department of Agriculture and Underwriters' Laboratories.

With only a small capital and a willingness to work, you can make a good income—if you'll let us show you how. You will be backed up by our strong advertising, and have our close cooperation.

If you are looking for a real opportunity to build a substantial business on a good product which every farmer needs, write today for terms on exclusive territory and full particulars.

The Reyburn-Hunter Foy Co.
825 Broadway Cincinnati, Ohio

Reduce Your FORDSON operating costs

with a

Pierce Governor

Holds the engine at a uniform speed, regardless of load. Saves fuel and oil. Helps prevent burnt-out bearings and scored cylinders.

Pays For Itself

A Pierce Governor can be installed in 20 minutes without removing carburetor, radiator, timer or fan and will save its cost in two weeks. Tractor performs better under all conditions. Saves one man's time on all belt work. Instantly adjusted for different speeds. Sold on money-back guarantee.

Write for Literature and Name of Nearest Dealer

Pierce Governor Co.
World's Largest Governor Builders
131 E. Ninth Street
Anderson, Ind.

Corrugated Metal ROOFING

$3.10 per 100 Sq. Ft.

Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only $3.10 per 100 sq. ft. painted. Galvanized, only $4.80. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money.

PREPARED ROOFING ONLY $1.05

Don't buy Roofing, Paints, Fencing, Gas Engines, Tires—anything you need until you get our latest catalog. You can see and try our roofing before you pay. All sold on money back guarantee. Write for Money Saving Catalog today.

The United Factories Co., 604 Marion Bldg., Cleveland, Ohio

WANTED! Get $1600 to $2300 a Year

U.S. RAILWAY MAIL CLERKS

TRAVEL—SEE YOUR COUNTRY
STEADY WORK—NO LAYOFFS—PAID VACATIONS
Common Education Sufficient
Influence Unnecessary

MEN—BOYS 18 OR OVER SHOULD MAIL COUPON IMMEDIATELY

Franklin Institute, Dept. R 208, Rochester, N. Y.
Sirs: Send me without charge (1) sample Railway Mail Clerk Examination questions; (2) Tell me how I can get a U. S. Government job; (3) Send list of Government jobs obtainable.

Name .....
Address .....

The Valley of the Giants—*By Peter B. Kyne*

"AH-H-H!" breathed His Honor. "That accounts for his failure to bring the matter up at our interview. Upon his return to the hotel he found this and got busy at once. By Jupiter, this looks like business. Henry, how did you come into possession of this telegram?"

"It must have been mixed up in the documents Ogilvy left with me. I found it on my desk when I was sorting out the papers, and in my capacity of attorney for the N. C. O. I had no hesitancy in reading it."

"Well, I do declare! Wonder who Hockley is. Never heard of that fellow."

"Hockley doesn't matter," young Henry declared triumphantly, "although I'd bet he's one of those heavyweight Wall Street fellows and one of J. P. M's vice-presidents, probably. J. P. M., of course, is the man behind?"

"Who the devil is J. P. M.?"

Henry smiled tolerantly. "Well, how would J. Pierpont Morgan do for a guess?" he queried.

"Hell's bells and panther-tracks!" Mayor Poundstone started as if snakebitten. "I should say you *have* hooked a big fish. Boy, you've landed a whale!" And the Mayor whistled softly in his amazement and delight. "By golly, to think of you getting in with that bunch! Tre-mendyous! Per-fect-ly tree-mend-yous! Did Ogilvy say anything about future business?"

"He said if I proved satisfactory, he would take me on and pay the customary retainer given all corporation attorneys."

"Well, by golly, he'd better!"

"If I could guarantee him that temporary franchise, it might help me to get in right with J. P. M. at the start," his hopeful suggested.

"Guarantee it!" his father shouted. "Guarantee it! Well, I should snicker! We'll just show J. P. M. and his crowd that they made no mistake when they picked you as their Sequoia legal representative. I'll call a special meeting of that little old city council of mine and jam that temporary franchise through."

"I'll tell you what let's do," Henry suggested. "I'll draw it up to-night, and we'll put it through to-morrow at, say, ten o'clock. Then I'll just casually take it over to Mr. Ogilvy. Of course he'll be surprised and ask me how I came to get it, and——"

"And you *look* surprised," his father cautioned, "as if you failed to comprehend what he's driving at. Make him repeat. Then you say: 'Oh, that! Why, that's nothing, Mr. Ogilvy. I found the telegram in those papers you left with me, and concluded you'd left it there to give me the dope so I could go ahead and get the franchise for you. Up here, whenever anybody wants a franchise from the city, they always hire an attorney to get it for them, so I didn't think anything about this but just naturally went and got it for you. If it ain't right, why, say so and I'll have it made right.'" Old Poundstone nudged his son in the short ribs and winked drolly.

"Leave it to your truly," said Henry.

His father carefully made a copy of the telegram.

"H'm!" he grunted. "Wants to cross Water Street at B and build out Front Street. Well, I dare say nobody will kick over the traces at that. Still, come to think of it, Pennington will probably raise a howl about sparks from the engines setting his lumber piles afire."

"HE'LL be dead against it," Henry declared. "I know, because at the Wednesday meeting of the Lumber Manufacturers' Association, Pennington said the N. C. O. ought to be discouraged."

"Then we won't tell him anything about it, Henry. We'll just pull off this special session and forget to invite the reporters; after the job has been put over, Pennington can come around and howl all he wants. We're not letting a chance like this slip by us without grabbing a handful of the tail-feathers, Henry. No, sir—not if we know it."

"You bet!" said Henry earnestly.

And it was even so. The entire council was present with the exception of Thatcher, who was home ill. His running mate Yates offered no objection to the motion to grant a sixty-day temporary franchise. He did point out to the board, however, that many prominent citizens had warned him of the danger of lending official aid to a passel of professional promoters and fly-by-nights; that after all, the N. C. O. might merely be the stalking-horse to unload the undesirable timber holding of the Trinidad Redwood Lumber Company. It was Mr. Yates' opinion that for the present a temporary franchise for thirty days only should be given; if the N. C. O. exhibited indubitable signs of activity, he would gladly vote for a thirty-day extension to enable the matter of a permanent franchise to be taken up in regular order.

This amendment met with the unqualified approval of the Mayor, as carefully announced to the other members of the Solid Four. The fact of the matter was, however, that he was afraid to oppose Yates through fear that he might grow cantakerous and carry his troubles to the Sequoia *Sentinel*—a base trick he had been known to do in the past. After explaining the advisability of keeping secret for the present the fact that a thirty-day franchise had been granted, His Honor submitted the amended motion to a vote, which was carried unanimously.

AT eleven-thirty Thursday morning, therfore, young Poundstone, having worked the greater part of the previous night preparing the deeds, delivered both deeds and franchise to Buck Ogilvy at the latter's hotel. It was with difficulty that the latter could conceal his tremendous amazement when Henry casually handed him the franchise. True, he had slipped the telegram among the contracts as bait for Henry and his father, but in his wildest flights of fancy he had not looked for them to swallow hook, line and sinker.

When he could control his emotions, Mr. Ogilvy gazed approvingly upon Henry Poundstone. "Mr. Poundstone," he said solemnly, "I have met some meteoric young attorneys in my day, but you're the first genuine comet I have seen in the legal firmament. Do you mind telling me exactly how you procured this franchise—and why you procured it without explicit orders from me?"

Henry did his best to look puzzled. "Why," he said, "you left that telegram with me, and I concluded that you regarded it as self-explanatory. I didn't want to bother you with details, so I just went ahead and filled the order for you. Anything wrong about that?"

"Certainly not. It's perfectly wonderful. But how did you put it over?"

Henry smirked. "My dad's the engineer," he said bluntly. "If thirty days ain't enough time, see me and I'll get you thirty days more. And in the meantime nobody knows a thing about this little deal. I figured Colonel Pennington might try to block you at that crossing so I——"

Buck Ogilvy extended his hand in benediction and let it drop lightly on Henry Poundstone's thin shoulder. Henry quivered under that gentle accolade and the great Ogilvy made a portentous announcement.

"My dear Poundstone," he said earnestly, "I am not a man to forget clever work." He smiled his radiant smile. "You understand, of course, that I am speaking for myself and can make you no firm promises. However——" He smiled again. "All I have to say is that you'll do!"

"Thank you," said Henry Poundstone, Junior. "Thank you ever so much."

CHAPTER XXIV

AN experience extending over thirty years had convinced Colonel Seth Pennington of the futility of wracking his brains in vain speculation. In his day he had been interested in some small public-service corporations, which is tantamount to saying that he knew peanut politics. Frequently he had found it of great profit to him to know exactly how certain men spent their time and his money, and naturally he had to delegate somebody else to procure this information for him. When, therefore, the Northern California Oregon Railroad commenced to encroach on the Colonel's sleep, he realized that there was but one way to conserve his rest and that was by engaging a specialist in the unravelling of mysteries.

The information forthcoming from Dun's and Bradstreet's was vague and unsatisfying. For the present the corporation had no office, its destinies in San Francisco being guarded by a well-known attorney who had declined to make any statement regarding the company but promised one at an early date. The board of directors consisted of this attorney, his two assistants, his stenographer, and Mr. Buchanan Ogilvy.

"It looks fishy to me," the Colonel commented to his manager, "and I'm more than ever convinced it's a scheme of that Trinidad Redwood Timber Company to start a timber-boom and unload. And that is something the Laguna Grande Lumber Company does not view with favor, for the reason that one of these days those people will come to their senses and sell cheap to us. A slight extension of our logging-road will make that Trinidad timber accessible; hence we are the only logical customers and should control the situation. Telephone the San Francisco office to have the detective-agency send a couple of their best operatives up on the next steamer."

When the operatives reported, the Colonel's orders were brief and explicit. "I want to know all about a man named Buchanan Ogilvy, who is up north somewhere procuring rights of way for the Northern California Oregon Railroad. Find him. Get up with him in the morning and put him to bed at night. Report to me daily."

Buck was readily located in the country north of Arcata, and one of the operatives actually procured a job as chainman with his surveying gang, while the other kept Ogilvy and his secretary under surveillance. Their reports, however, yielded the Colonel nothing until the first day of Buck's return to Sequoia, when the following written report caused the Colonel to sit up and take notice. It read:

"OGILVY in room until 12 noon. At 12.05 entered dining room, leaving at 1 p. m. and proceeding direct to office of Cardigan Redwood Lumber Company. Operative behind a lumber-pile at side of office so as to command view of interior. From manner of greeting accorded Ogilvy by Bryce Cardigan, operative is of opinion they had not met before. Ogilvy remained in private office half an hour, spent another half-hour conversing with young lady in general office. O. then returned Hotel Sequoia, where he wrote letters in writing-room. At 3 p. m. called to telephone. At 3:02 left hurriedly for Cardigan Redwood Lumber Company's office. Entered private office without waiting to be announced. Emerged at 3:12, walking slowly in deep thought. At B and Cedar streets stopped suddenly, snapped fingers and started walking rapidly in the manner of one arrived at a decision. At 3:24 entered the telephone building and placed a long-distance call. Operative at counter close by heard him place call, for the Cardigan Redwood Lumber Company in San Francisco.

"Concluded conversation at 3:32 and proceeded to the city hall, entering the Mayor's office at 3:43 and emerging at 4:10. Returned to Hotel and sat in the lobby until handed a telegram at 4:40; whereoupon he entered the telephone-booth and talked to someone, emerging at 4:43 to go to his room. He returned at 4:46 and hurried to the law-office of Henry Poundstone, Junior. With Poundstone until 4:59, when he returned to Hotel, carrying a small leather grip.

"Arrived at the hotel at 5:03 and went to his room. At 6:45 entered a public automobile in front of the hotel and was driven to No. 846 Elm Street. The brunette young lady who works in the Cardigan Company's office emerged and entered the car, which then proceeded to No. 38 Redwood Boulevard, where the brunette young lady alighted and entered. She returned at 7 sharp, accompanied by a young lady whom she introduced to O. All three were then driven to the Canton restaurant and escorted to a reserved table in one of semi-private rooms. At 7:15 Bryce Cardigan entered the restaurant and was escorted by the waiter to the table occupied by O. and party.

"At 9:30 entire party left restaurant and entered a Napier car driven by a half-breed Indian hailed as George. O. and the brunette young lady were dropped at 846 Elm Street while Cardigan and the other young lady proceeded directly to No. 38 Redwood Boulevard. After aiding lady to alight, Cardigan talked with her a few minutes at the gate, then bade her good-night and returned to the automobile and was driven home.

"Upon returning to Hotel Sequoia, found O. in hotel bar. Saw him to bed at 10 sharp."

NEEDLESS to relate, this report had a most amazing effect upon Colonel Pennington, and when at length he could recover his mental equilibrium, he set about to analyze the report, with the following conclusions:

(1) His niece Shirley Sumner was not to be trusted in so far as young Bryce Cardigan was concerned. Despite her assumption of hostility, the Colonel was now convinced that she had made her peace with him and had been the recipient of his secret attentions right along. The Colonel was on the verge of calling his niece up to demand an explanation, but on second thought decided to wait a few days and see what his gum-shoe men might have to report further.

(2) The N. C. O. was still a mystery, but a mystery in which Bryce Cardigan was interested. Moreover, he was anxious to aid the N. C. O. in every way possible. However, the Colonel could understand this.

(3) The N. C. O. was going to make a mighty bluff, even to the extent of applying for a franchise to run over the city streets of Sequoia. Hence Ogilvy's visit to Mayor Poundstone. Hence, also, his visit to young Henry Poundstone, whom he had doubtless engaged as his local representative in order to ingratiate himself with the young man's father. Coarse work!

(4) Ogilvy had carried a small leather bag in from Henry Poundstone's office. That bag was readily explained. It had contained a bribe in gold coin and young Henry had been selected as the go-between. That meant that Mayor Poundstone had agreed to deliver the franchise—for a consideration; and like the smooth scoundrel he was, he wanted his bit in gold coin, which could not be marked without the marks being discovered!

(*Continued on page* 299)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

JOHN CARDIGAN, redwoods pioneer, now blind and almost defeated by Colonel Seth Pennington, a rival operator, discovers that his son Bryce is in love with the Colonel's niece, Shirley Sumner. The old man shrewdly suspects that she returns his love, but Bryce doubts it.

However, Shirley has secretely furnished him fu[illegible]her, by purchasing the Valley of The Giants, thus also t[illegible]uncle, whom she is beginning to suspect of sharp practice. [illegible]ght Buck Ogilvy to Sequoia to help build a railroad w[illegible]his logs to tidewater and Buck promptly falls in love witl[illegible], daughter of an old Cardigan woods-boss. He pleases [illegible] gaging his son as lawyer for the N. C. O.

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What Is a "Loop" Antenna?

A Radio Talk on an Indoor Aerial

By BRAINARD FOOTE

WITH the development of radio frequency amplification a concentrated form of aerial known as the "loop" has come into use. Essentially, a loop consists of a wooden or brass framework from two to four feet square, about which is wound in spiral or box-like style a number of turns of wire.

Sometimes the loop is mounted vertically on a shaft which passes through its center, and others are mounted on an extension of one of the cross-arms, diamond shape. The loop is always arranged so that it may be rotated about its axis. The two forms of mounting are equally effective.

How does the loop function? A loop is nothing more or less than a coil of wire made up into a larger form than is customary for coils which are used in tuning a receiving set. Indeed, where there is a broadcasting station within a mile or two, it is often possible to pick up some of the speech and music without any aerial at all. The coil of the set is sufficient to intercept the waves and cause a response in the headphones.

Locating the Loop

TO make such a scheme operate satfactorily, the coil is made larger for the express purpose of acting as a concentrated aerial. When the loop is moved to such a position that the waves from the broadcasting station come parallel to it, in other words, when the flat plane of the loop is pointed directly toward the station, the signals are received with the greatest intensity.

The wave first strikes on side of the loop and induces a current in its wires, just as we have found it to do in the case of the antenna. Then a bit later it comes to the other side, which is a little further from the source of the waves than the side of the loop which the wave first encountered. Here a current is induced in the other direction. In this manner, current oscillating back and forth is set up in the loop, and it may be applied to the detector tube. Since the loop is in reality a coil such as the secondary winding of a vario-coupler, it is necessary to provide some method by which it may be tuned to the respective wave lengths used by the different stations. This is done by a variable condenser of about 23 plates, connected to the two ends of the loop's winding.

Now, when the loop is turned so that it is at right angles to the direction of the broadcasting station, the signals disappear. Why? Because the wave strikes the two sides of the loop exactly at the same instant, and the current in one side is nullified by that in the other. Right here we may recognize one of the great advantages of the loop over the outside aerial. The latter is only slightly directive, but with the loop, the remarkable directional properties enable us to tune out or select between two stations operating on exactly the same wave length, providing they are in different directions from the set.

A Valuable Property

THIS property of the loop was invaluable during the World War, when loops were used by the French and American armies to locate enemy radio stations both on the ground and on board aeroplanes. Loop stations were erected ten or twenty miles apart, and "bearings" taken when the enemy stations were transmitting. The directions obtained by the several stations were plotted on a map at the central office, and the position of the station indicated by the point at which all the lines crossed. To-day this system is employed by the naval "Compass" stations, and ships' positions are furnished to captains who are a bit uncertain during fogs and thick weather.

Another point in favor of the loop is its extreme selectivity. One or two degrees movement of the condenser serves to tune out a station altogether and pick up another one. This is especially useful when distant or "DX" reception is being attempted while a nearby station is operating on almost the same wave length. Radio frequency amplification will be covered in the next radio article in the American Agriculturist, with especial emphasis on the "reflex" circuit which has won its way into the broadcast field.

In this circuit, which may be used for either loop or outside antenna, the vacuum tubes are used along with a crystal detector in such a manner that long-distance work is provided by radio frequency, while signal strength is given by audio frequency, both on the same tubes.

The Valley of the Giants

(*Continued from page* 298)

Ogilvy had called first on the Mayor to arrange the details; then he had called on the Mayor's son to complete the transaction.

(5) If a franchise had been arranged for and the bribe already delivered, that meant the prompt and unadvertised commencement of operations. Where (the Colonel asked himself) would these operations begin? Why, close to the waterfront, where materials could be landed from the steamer. At whose mill-dock would those materials be discharged? Why, Cardigan's, of course. Yes, the N. C. O. was going to carry its monumental bluff to the point of building a mile of track through town. . . . No—no, they wouldn't spend that much money on a bluff; or bribe Poundstone unless the road was meant. And was it a common carrier, after all? Had Cardigan in some mysterious manner managed to borrow enough money to parallel the Laguna Grande Lumber Company's loggingroad, and was he disguising it as a common carrier?

The Colonel mopped his brow and concentrated further. If the N. C. O. was really going to start, in order to move its material from the Cardigan dock to the scene of operations it would have to cut the Colonel's tracks somewhere on Water Street. That was it! They were planning to get a jump-crossing in before he should awake to the situation; and once the crossing should be in, they could laugh at Colonel Pennington!

"The scoundrels!" he murmured. "I'm on to them! Cardigan is playing the game with them. That's why he bought those rails from the old Laurel Creek spur! Oh, the sly young fox to fool me into thinking he wanted those rails for an extension of his logging-system! Oh, what a blithering idiot I have been! However, it's not too late yet. Poundstone is coming over to dinner Thursday night, and I'll wring the swine dry before he leaves the house. And as for those rails."

He seized the telephone and fairly shouted to his exchange operator to get Jules Rondeau.

"That you, Rondeau?" he shouted when the big French Canadian responded. "What has young Cardigan done about those rails I sold him from the abandoned spur up Laurel Creek?"

"He have two flat-cars upon ze spur now. Dose woods-gang of hees she tear up dose rails from ze head of ze spur and load in ze flat-cars."

"The cars haven't left the Laurel Creek spur, then?"

"No, she don't leave yet."

"See to it, Rondeau, that they do not leave. Understand? Cardigan's woods-boss will ask you to send a switch-engine up to snake them out late this afternoon or to-morrow afternoon. Tell him the switch-engine is in the shop for repairs or is busy at other work—anything that will stall him off and delay delivery."

"Suppose Bryce Cardigan, she comes around and say 'Why?'" Rondeau queried cautiously.

"Kill him," the Colonel retorted cooly. "It strikes me you and the Black Minorca are rather slow playing even with young Cardigan."

Rondeau grunted. "I theenk mebbe so you kill heem yourself, boss," he replied enigmatically, and hung up.

(*Continued next week*)

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Give a Thought —TO— Advertising

We are devoting this column to a subject that during the past score of years has caused a great deal of comment and discussion. Agricultural advertising, a branch in the big advertising field, has already played a large part and is going to play an even larger part in the future.

It may interest you to know that American Agriculturist is being used as a laboratory test in the course of agricultural advertising now being given at the State College of Agriculture at Cornell University. The class made a study of the relative value of advertising in the issue of February 17 and decided that the best advertisements in the order of their merit were those of the Harder Silo and Dr. Hess's Pan-a-ce-a. The others mentioned in their order as being unusually good ads were the following:

Unadilla Silo
Royster Fertilizers
G. L. F. Poultry Feed
Le Roy Plow Company
International Harvester
Hillpot Chicks
Troy Chemical Company
Melotte Separator
Planet Jr. Seeder

The class has already reported on another recent issue. The results of that report will be published in this column in the near future.

By reading advertisements a man can learn the merits of different articles and decide which is the best for him to buy. He isn't limited to any one thing. He has the products of the whole country to choose from. The goods of the world are brought right to his doorstep—if he but reads the advertisements.

The world knows the truth of the saying: "It pays to advertise," but there's another saying just as true but not so familiar, and that is: "It pays to read advertisements."

That's why we've started this column. To give our subscribers a better acquaintance with advertising and what advertising does.

For advertising plays a mighty important part in every farm paper. Your subscription pays only a very small part of the cost of publishing the papers you get. Advertising pays the biggest part of the bill. If it wasn't for the advertisements, your magazines and papers would cost about five times as much as they do.

So it's worth while to "Give a thought to advertising." That's why we gave this column that name. We want you to benefit as much as possible by our advertisements. We want them to pay you as well as us. For when you come right down to rock-bottom facts you are the ones we must satisfy. We publish this paper for your pleasure and your benefit.

And so now, every week, this column will be given to some thought about advertising that will interest you. We will welcome suggestions and comments on advertising in general. Tell us what you think about it. And most important of all, tell us what you think of the advertising in the American Agriculturist. Just address the Advertising Manager,

American Agriculturist
461 FOURTH AVENUE
NEW YORK CITY

And remember: "It pays to give a thought to advertising."

Hot Lunches Make Better Children

Practical Suggestions for School Meals—Other Household Pointers

A FEW weeks ago the Home-Makers' page had a peep into the lunch box of little Johnnie Brown, a schoolboy whose mother has given much time and thought to putting up the lunches that her small son finds so "easy to eat." But in spite of her skill in providing for hungry Johnnie, Mrs. Brown never felt quite satisfied that he could not have the wholesome hot dish which her common sense, as well as her study of food values, told her would probably mean an improvement in Johnnie's report card as well as in his physique.

Johnnie goes to a one-room country school. He eats his lunch on his desk, and so do the other boys and girls. Some bring more than others, and "swapping" often destroys the "balanced meal" a mother has planned. Then, too, some of the boys and girls bring skimpy lunches, while a few turn up quite often without any. Mrs. Brown, whose motherliness extends outside her own family, decided that something should be done to give every child in the school a good hot dish at noon.

Beginning on a Small Scale

At first a hot dish was served only twice a week, for the young teacher wished to establish a system of cooking and service. She started with hot chocolate, which the girls helped her prepare, and which the boys, in relays, passed around. The milk came from the fine herd of a neighbor and was purchased at cost. A charge of two cents a cup was made, and the son of a man who had opposed the lunch idea was appointed treasurer. This proved a wise bit of strategy! After the lunch the girls cleared up and the boys "wiped."

It soon proved that it was better to divide both boys and girls into three groups, each group to help for one week, the others to be served till their turn came. The second lunch of the first week consisted of a creamed pea soup, made from dried vegetables given by a mother; the milk was obtained from a farmer, and the charge was 3 cents, making 5 cents for the week. The school soon ran on a daily hot dish basis. A charge of 15 cents a week was made and, in a few cases, remitted. The committee felt that every child should have the dish and that those who could not afford it probably especially needed it.

Needless to say, it took many weeks to get things working smoothly; there were discouragement and setbacks, but Mrs. Brown, surveying some surprising figures furnished by the County Home Bureau on underweight and malnutrition among country children, felt that it it was worth it. The fact that one-third of the children of the nation are undernourished did not impress her neighbors until she showed that country children suffered as much as city ones, and that some Ohio women, working to make hot lunches a feature of every rural school, had cut the proportion of tea and coffee drinkers among 2,818 children from 75% to 45%, with a corresponding increase in milk drinkers and corresponding health improvement.

The School Teacher Will Help

Johnnie's teacher, a young girl just starting in with her first school, had plenty of work on her hands, but consented to help. Some parents agreed to help too; others, alas, were indifferent or even opposed. "What was good enough for us is good enough for our children"—that old standby of the lazy and self satisfied, tried Mrs. Brown's patience, as it has that of many another. She persevered, however, and, turning to the Home Bureau, found her ammunition in the shape of bulletins listing the required materials, stories of what other communities had done, and recipes for simple nourishing dishes.

The cost of installing school lunches went largely for equipment and food material. Hired help was voted unnecessary, as the children could wait on themselves and assist also in preparing the food and washing up. The teacher assumed the supervision to insure cleanliness and proper cooking.

The equipment in the list, made up after careful study, included: 1 large kettle, to use on the stove which heated the school measuring cup; paring knife; 1 saucepan or double boiler, 1 mixing spoon, 1 serving spoon, 2 dishpans, 6 towels, 1 egg beater, and 1 asbestos mat.

Pupils were to bring any extras they desired from home. Paper plates were also ordered, as an emergency supply. The cost of these supplies, it was estimated, should not exceed $15. Donations of towels and a kettle brought the cost down, and a knife, fork, spoon, and cup apiece were ordered for each child, instead of having them supplied from home, as was originally intended.

"When a feller needs a friend"—or what not to pack in the lunch basket

Part of the money—$6—was given in small contributions, the rest and a small extra fund was raised by a basket party, at which the supper boxes prepared by women of the community were auctioned off to the men. Meanwhile the boys of the school built and covered with oilcloth two shelves for utensils. The girls made a protecting curtain for them.

Health of Children Better

Mrs. Brown and her committee are now eagerly awaiting the annual physical examination at which the school children will all be weighed. But the teacher tells them that they need not wait for the doctor's verdict, for she already sees the effect. "Eleven o'clock drowsiness" is a thing of the past, dull eyes are brighter, and even the girls and boys thought by their parents "perfectly healthy" have gained weight, look better, and are actually more alert and sturdy.

The hot dish at lunch pays in dividends of better, healthier children, and Mrs. Brown, for one, doesn't grudge the small amount of time and money which is building brain and brawn for husky little Johnnie.

RENEWING FURNITURE

MRS. GEORGE GRAY

The framework of old furniture has great possibilities, no matter how dilapidated and scarred the finish. Many garrets hold treasures which only require a little labor to make them a thing of beauty. In fact, the older the piece, the greater the possibility.

An old six-legged round table of ours had a most uninviting appearance. The color was a dingy brown, without grain or gloss, and it bore the scars of many years. After much consideration it was decided to remove the entire finish and reach the original wood. For this purpose a strong solution of gold dust was used. When all was removed, the table was thoroughly dried and given a coat of mahogany stain with varnish added. One of the prepared stains would have given the same results. It now occupies a prominent place in the living room and the owner prizes it highly.

Not everybody would have finished it this way. Tastes vary and one of the nice things about renewing furniture is the variety to be had. Rosewood or cherry would have made it a lighter color, while oak or walnut would have been other alternatives.

Many people do not care for the shine and gloss of varnish on the old pieces. A dull finish is procured by using wax instead. A little wax on a soft flannel cloth is rubbed on the furniture, doing only a small surface at a time, and using the wax sparingly. It is better to apply it often in small quantities. After about five minutes, rub it with a soft cloth until there is a rich dull luster.

Should the furniture need repairing, use the same kind of wood if possible. If that cannot be obtained, use something with the same grain, and stain it to match. Dents and holes should be filled with beeswax which is softened until like putty. Sandpaper around and over it. The dust will work into the beeswax and give it a wood finish. Two coats of shellac render a surface just right for the application of wax. The shellac should be rubbed with an old gunny sack.

Furniture painted white is very popular now and many bedrooms are fitted with it. If this is done be sure that the paint does not contain oil as it is almost impossible to get it dry. Use inside flat white for two coats, then apply one of enamel white.

Old chairs carrying many coats of paint are most easily done over by using a ground color. When you have a good foundation covering (usually three coats), apply any desired stain. Walnut is a favorite with me. This finish is very durable.

There is a great satisfaction in doing this work and beholding the transformation. Often, old furniture sells for a song, but a little money and labor will make it well worth keeping.

RECIPES USING RAISINS

Oriental Marmalade

2 cups dried apricots
1 cup dried figs
1 cup dates
2 cups seedless raisins
4 cups cold water
1½ cups brown sugar
2 lemons

Cut apricots, figs, dates and raisins in pieces. Cover with cold water and soak over night. Add sugar and juice from lemons and cook slowly until thick—about 40 minutes. Pour into sterilized glasses and seal with paraffine.

Prune and Raisin Conserve

1 cup prunes
1 cup seedless raisins
2 cups cold water
1 cup brown sugar
1-3 cup vinegar
1 teaspoon cinnamon
½ teaspoon clove
½ teaspoon allspice
½ cup chopped blanched almonds

Soak prunes and raisins overnight in cold water. In the morning cook in the same water until prunes are tender. Discard pits from prunes and cut in pieces. Add sugar, vinegar and spices Cook until thick—about 45 minutes. Add almonds and cook 5 minutes. Pour into sterilized glasses and seal with paraffine. This makes about 6 glasses.

Fried Mush With Raisins

½ teaspoon salt
2½ cups boiling water.
½ cup corn meal.
½ cup chopped seedless raisins

Add salt to boiling water. Add cereal slowly, stirring constantly, and allow to boil 10 minutes. Cook in a double boiler ¾ hour. Add raisins 15 minutes before it is done. Pour into greased loaf pan and set aside until cold and firm. Cut in slices. Dredge lightly with flour and brown in a small amount of hot melted fat in a frying pan. Serve plain or with syrup This is delicious and young children will love it for a treat at lunch or supper.

WHOLE WHEAT HOT CAKES

Two cups whole wheat flour, 3 heaping teaspoons baking powder, 1¾ cups milk, ½ teaspoon salt, 1 teaspoon molasses, 1 tablespoon melted shortening, 2 eggs.

Sift together dry ingredients; add milk, molasses and shortening to beaten eggs and add to dry ingredients; mix well. Bake on hot slightly greased griddle, turning only once.

These are delicious eaten with maple syrup or honey.—MRS. H. M., N. Y.

Your patterns are the finest I e[illegible] used, and I have used many.—M[illegible] A. V. B., New Jersey.

Dessert Dishes For Parties

These Tempting Spring Patterns—A Hint for the Flower Lover

THE very idea of a party is to "have something different." Unusual dessert dishes are attractive and can be made with simple ingredients, the charm lying in the quaint form and appearance. A snow-covered cottage is a good instance of a dish for a child's party, for it is very appealing to the eye. The "cottage" is built up by means of slices of sponge-cake and the door can be made of something darker, say chocolate cake or ginger bread. Over all, to represent the snow, a little whipped cream is poured, while a little jam may be added to give color and flavor. Such a dish will give the youngsters an amazing amount of pleasure.

Fruit can be arranged to give it a marvelous importance and interest. Take two bananas and convert them into a pair of pigs by the simple means of adding broken matches for legs, paper tails and ears, and eyes painted with Chinese white upon the yellow rinds. You will be surprised with the delight which your handiwork will call forth.

Much May Be Done With Bananas

Bananas adapt themselves favorably to this kind of treatment. An Irishman riding his pig to market "to pay the rint" is funny. For the man, take a banana and slice off a small portion of one end, so that it will stand erect. Make arms of matches. A little piece of colored tissue paper makes the coat, to which may be added a scrap of ribbon for the scarf. And the old man's hat requires a word of special counsel. It can be formed from a small cork, gummed upon a circle or cardboard for the brim, the whole being duly blackened with charcoal.

An old Welsh woman with her cat is also funny. The woman's body can be made from a banana and draped with colored tissue paper. Make her hat of a filbert nut; the crown may be flattened in order to support the hat. Make her cat of two filbert nuts joined together and supported by pieces of matches. Bore holes through the shells of the nuts in order that the matches may go through. Paint eyes and mouth on them.

Other fruits beside the banana may be used to good advantage. Make a Red Indian out of a good-sized Turkey Tg. His head may be a filbert nut with the outer husk intact; his arms may be pieces of almond, while the river upon which his canoe (or banana) sails is represented by some pale colored jelly.

An elephant is made by taking a pear for the body and a small apple for the head. Join these together with a little wooden skewer. He may be supported upon two pieces of banana, which act as legs; while his trunk is a piece of orange peel. His tail is of straw, his eyes are glass-headed pins, and his trappings and ears are of colored paper. —JULIA W. WOLFE.

POPPIES ARE SHOWY ANNUALS

The poppy is very showy, with gay colors, yet it is not coarse. The velvety petals are thin as silk, and fall quickly, but new buds are constantly opening, so a bed will be a blaze of color throughout the long-blooming period. There are double and single varieties and several types.

A good mixture of types in double sorts will give a big range of flowers, for the doubles produce a percentage of single and semi-double flowers. The seeds should be sown very early in the spring, for they are hardy. The seedlings are very small and grow slowly at first, and if not sown early, weeds will choke them before they are large enough to work around well. The seeds are cheap and can be freely used, and if sown early you will have a nice lot of strong little plants. They will not bear transplanting. Thin to a foot apart for largest flowers, but a showy bed may be thicker. After the plants get a good start they grow fast and are fairly hardy, and after the first year the weed will self-sow and will generally be plentiful very early, but if you want good blooms you must fertilize and cultivate the soil well as soon as you can work among the plants.

The bright golden cups of the California poppies are dazzling when grown in a mass. The fine-cut foliage is light green, with a bluish tinge, low and dense, and sets off the golden blooms that wave about on slender stems above it. They will continue to bloom during the summer if seeds are not left to ripen. For edging a flower bed, the yellow poppy is very popular, but it makes the best showing when planted in a bed or wide row, so the blooms can be seen as a sheet of gold. —RACHAEL RAE.

RENOVATING PILLOWS

If pillows need renovating it is well to do it while the weather is cold enough to freeze the feathers, as that renders them light and fluffy.

Empty the feathers into bags made of thin white cloth and much larger than the pillows, so they can be shaken and squeezed in the warm suds. When they are clean, rinse thoroughly and hang on the line.

Frequent shaking and beating, as they near the drying point, helps to render them like new. If the ticks are good enough to use again, turn wrong side out and shake them thoroughly. When they are ironed, sprinkle wax on the wrong side and use a hot iron. This prevents the down and dust from working through. Insert one end of the sack into an opening in the tick and the feathers are easily replaced. If a cover tick is used, it is easily taken off and laundered without disturbing the feathers. This need not be of ticking. White cloth is very nice to use. Some people reverse this method and put the feathers in a thin bag before putting in the tick. Then either tick or feathers may be washed as needed.

If the feathers do not require washing, the pillows are much improved by sprinkling and laying on the snow in the spring sunshine.—MRS. GEORGE GRAY.

THREE DRESSES WHICH PROVE THAT SPRING IS HERE

IS No. 1608 an apron or a dress? It has all the advantages of both, it would seem, for it covers one all over, is loose-fitting, and yet not the least bit "sloppy." An ideal garment for the busy housewife who wants to look presentable while she works.

No. 1608 comes in sizes 38, 40, 44 and 48-inches bust measure. Size 36 requires 3⅛ yards 36-inch material with ⅞ yard contrasting. **Price, 12c.**

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FOR the girl who is thinking anxiously about that graduation dress, **No. 1633** solves the problem. Any high school girl could make it (or should be able to), yet it has a new, Frenchy look which sets it apart. Made in organdie, voile or taffeta it would grace any occasion.

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461 FOURTH AVENUE

NEW YORK CITY

Reviewing the Latest Eastern Markets and Prices

EGG SHIPMENTS INCREASING

H. H. JONES

AS prophesied on this page several weeks ago, the egg market held up remarkably during the month of March compared with last year. This was due to the extra demand for Easter and Jewish Passover holidays, which came earlier this year, and to the succession of cold waves and storms since January 1. Receipts began to increase considerably the third week in March, but total receipts at New York for the period of January 1 to date were still 33,000 cases below those in the same period last year. Stocks of Western eggs in transit were reported liberal.

The pre-Easter demand was chiefly for fancy graded stock, especially large-size white eggs. Express shipments from nearby sections have increased gradually, but qualities have not improved, many of best eggs apparently being culled for incubator use. The highest grades advanced and were sold promptly, but average and ordinary stock tended to accumulate.

Storing has started in the larger markets, but the amount stored so far has been insignificant. At New York, March 22, there were only 3,549 cases of eggs in cold storage, compared with 63,859 cases on the same date last year. The storage season will really begin after April 1, but the movement in the first half of April cannot be as heavy as last year. The chances are that the bottom price of eggs for this season will come after May 1.

Consumption continues to increase in spite of the way prices have held up, and the output through New York wholesale channels in the week ending March 17 was actually higher than in the corresponding week of 1922, and very much above the previous week. The big chain stores were advertising fresh eggs as low as 29c per dozen to the consumer last week, and very generally around 30 to 34c. These eggs were chiefly Pacific Coasts.

At this time last year extra fancy nearby hennery whites sold at 35 to 37c, compared with 39 to 41c last week. Nearby hennery browns, extra fancy, last year were 29½ to 30c, compared with 34c on March 22 this year.

CABBAGE NOW WEAKER

More liberal receipts of State Danish variety cabbage, heavy importations from Holland and increasing arrivals of Southern new cabbage caused a much weaker market last week, and the peak of prices for this season has undoubtedly been passed. Old cabbage is especially weaker, and State Danish sold on March 22 at $35 to $38 per ton. Opening up of country roads will probably cause still more liberal shipments and bring prices lower. New cabbage is now arriving from Texas, Louisiana, Florida, South Carolina and California.

POTATOES CONTINUE UPWARD

Because of bad roads and transportation difficulties, up-State potatoes in New York City markets worked higher last week. States in 150-lb. sacks sold from $3 to $3.50 for the best stock. Poor much lower. Demand good. Offerings were very light.

Bulk sold from $1.80 to $2 cwt., delivered in carlots; 150-lb. sacks quoted from $3 to $3.50 for prompt shipment. Maines offered at $2.25 to $2.35 cwt., bulk carlots, delivered. Long Islands sold as high as $6 for 180 lbs. Demand exceeding supply.

Potatoes from Minnesota and Wisconsin are rolling to New York at prices ranging from $2.25 per 150-lb. sack to $3.15. Quality good. Some fancy Virginia second-crop barrels have arrived and first car Florida Spaulding Rose of the season came forward on Tuesday of this week. Best grades sold well at firm prices, with Virginia Red Bliss generally commanding $6 and Floridas selling at $12 per bbl. for No. 1s and $8 for No. 2s.

ONION SUPPLIES LIBERAL

The usual active market for onions just before Easter and the Passover promises to be well supplied this year. Receipts were so liberal that prices were very irregular last week. On March 22 best Central and Western N. Y. yellows No. 1 sold at $3.25 to $3.50 per 100-lb. bag, with a few fancy at $3.75 to $4, and ordinary at $2.50 to $3. Best red onions sold at $2 to $2.25.

At this time last year State Yellow No. 1 sold as high as $11 to $12 per 100-lb. bag and Red No. 1 at $9 to $10, with the market very strong.

MARKET DULL ON OLD CARROTS

Now that new-crop bunched carrots from the South are arriving more heavily, the trade is turning away from old carrots, and market for them is dull, except for fancy medium-sized bright muck stock. State old crop muck, unwashed, best sold at $1.50 to $1.60 on March 22, with a few fancy at $1.65. Double-headed barrels, ordinary stock, sold all the way from $1.75 to $2.50.

BROILER DEMAND INCREASING

The demand for live fat fowls for the Jewish Passover holiday was very active and premiums were paid for the best stock. This special demand will be over on Friday, March 30. Old roosters were neglected prior to the Passover holiday, and there was very little demand for last year's chickens except those that were smooth-legged and fairly small in size. The demand for broilers is steadily increasing. Express shipments have been light. Because of increased demand, the market was firmer on March 22, with sales of colored spring broilers at 70 to 75c, and White Leghorns 58 to 67c.

Long Island spring ducks sold slowly last week, and it became necesary to reduce the price to 34c, which caused a considerably increased demand. In spite of the rescinding of the rule of the Board of Health restricting the sale of live rabbits, very few rabbits were received last week, and a strong demand for them was expected in the week before Easter.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on March 22:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	41 @44	......	......
Other hennery whites, extras	40 @41	......	......
Extra firsts	36 @38	33@34	28
Firsts	34½@35½	......	26½
Gathered, whites, first to extra firsts	34½@38	......	......
Lower grades	32 @34	......	......
Hennery browns, extras	34	......	......
Gathered browns and mixed colors, extras	30 @33	30@31	......
Pullets No. 1	27½@28	......	......
Butter (cents per pound)			
Creamery (salted) high score	50½@51	54@55	......
Extra (92 score)	50	52@53	52
State dairy (salted), finest	49½	50@51	......
Good to prime	48½@49	42@48	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$23@24	$20@21	$20@21
Timothy No. 3	20@22	......	17@18
Timothy Sample	12@16	......	......
Fancy light clover mixed	25	......	21@22
Alfalfa, second cutting	30@32	......	......
Oat straw No. 1	16@18	......	15@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	29@30	32@33	32@34
Fowls, leghorns and poor	27	28@30	......
Chickens, leghorns	26	20@22	29@31
Roosters	14@15	22@23	19@20
Live Stock (cents per pound)			
Calves, good to medium	13½@14½	8 @13½	......
Bulls, common to good	4 @ 4¾	4½@ 6	......
Lambs, common to good	9½@12½	14 @15¼	......
Sheep, common to good ewes	3½@ 5½	8 @ 9	......
Hogs, Yorkers	9¼@ 9½	9½	......

BUTTER CONTINUES FIRM

The butter market was very firm all last week, and prices on March 22 were slightly higher than a week previous. Quotations on creamery at New York March 22 were 13c lb. higher on most grades than a year ago. The advance in price was in spite of the fact that receipts last week are about 5,000 tubs in excess of the previous week. The total receipts at New York from January 1 to March 22, 1923, were 663,457 tubs, compared with 614,602 tubs in the same period last year. The stocks of butter on hand in cold storage are very much below those of last year. Improvement in industrial conditions generally seems to have increased consumptive demand for butter. The feeling on the part of the wholesale trade is nervous, and the major part of the trade are trying to keep their supplies cleaned up each day as far as possible.

Since January 1, 16,955 casks of Danish butter, 11,050 boxes of Argentine, 55,889 of New Zealand, a total weight of 5,647,544 lbs. of foreign butter have been received at New York. Last week two boats arrived from Buenos Aires with total cargoes of 3,600 boxes of salted creamery butter, which had an apparent value of 47 to 48c per lb., duty paid. The Danish markets are offering best lots of butter for prompt shipment at a cost of 42½c at New York.

NEW BUTTER STANDARDS

An act recently passed by Congress and approved March 4, defines butter and provides a standard therefor under the Federal Food and Drugs Act, which includes the folowing definition: "But- shall be understood to mean the food product usually known as butter, and which is made exclusively from milk or cream, or both, with or without common salt, and with or without additional coloring not less than 80 per cent by weight of milk fat, all tolerances having been allowed for."

EXPORT BUYING HELPS CHEESE

Continued export buying of cheese has kept up the prices on well-made fresh stock. The Wisconsin market was firm last week. State, whole milk flats, fresh, average run, were quoted at New York March 22 at 25c lb. Held flats, average run, sold at 28 to 28½c.

Considerable cheese was in transit last week for Eastern seaboard points for shipments to British ports. Stocks of old cheese in the East are light. Cold storage holdings at New York March 22 were only 565,041 lbs., compared with 791,053 lbs. on that date last year.

DRESSED CALVES ADVANCE

Receipts of country dressed calves were lighter last week and the extra demand on account of the Easter trade caused the market to advance. More shipments were expected as a result of the higher price but quotations are likely to drop as soon as the Easter demand is supplied. Strictly fancy veals are in small proportion of the total receipts and the demand for them is greater than for any other grade of calves. Choice, dressed calves sold March 22, at 18 @ 19c per lb., prime, 17c, good, 15 @ 16c, medium, 13 @ 14c, small, 60 lbs., or common at 10 @ 12c.

There was a steadily increasing demand for dressed hothouse lambs and good trading was expected until after Easter. Fancy hothouse lambs sold at $9 @ $11, and poor, $5 @ $7 each on March 22.

TRANSPORTATION IN BAD SHAPE

Car shortage and congestion of railroad traffic promise to be more serious this spring than ever. It is quite likely that prices of farm products may be kept up at consuming centers due to inability to move the products from country to market. It is also likely that farmers will be greatly handicapped in spring operation by delay of fertilizer, feeds and other necessities. In our judgment, it would pay every farmer to anticipate his needs for the next 10 weeks and order his supplies at once.

HAY SHIPMENTS STILL HEAVY

Receipts of hay at New York continued liberal last week and the market was irregular. Prices were so slow as to discourage further heavy shipments but there was still considerable hay in transit and supplies at the terminals were adequate to carry for some time. The pendulum of fluctuating prices may have swing low enough to cut off shipment, so that the man who ships at the time of least shipping will get his hay here when it swings back again. It is hard to advise anybody about shipping hay to this market as long as terminal facilities and methods of handling are such that prices go up and down with receipts of comparatively few cars. The absence of terminal storage facilities is the greatest drawback to orderly marketing.

Very little strictly No. 1 hay was received here last week, the bulk of the supply grading from No. 2 down with a large proportion of poor hay from State sections. Sales even on like qualities were at widely varying prices according to pressure to sell and place where hay was unloaded. Some very low prices were reported from track delivery stations and piers and the average sales were somewhat lower in Brooklyn than at Manhattan points.

LIGHT TRADING IN FEEDS

Trading in feeds was dull last week. Prices held fairly steady except for oil meal, but demand was weak. Quotations at Buffalo March 21, carlots Buffalo rate basis in 100 lb. sacks, per ton were as follows:

Gluten feed, $46.55; cottonseed meal, 36 per cent, $47; oil meal, 31 per cent, $40; standard spring bran, $34.50; hard winter bran, $35.75; choice flour middlings, $36.25; white hominy, $32.05. No. 2 yellow corn per bushel, 85½c; No. 2 white oats, 53c.

CASH GRAINS AT NEW YORK

The following were cash grain prices at New York, March 23:

No. 2 red wheat, $1.45@1.50; No. 2 hard winter, $1.35½; No. 2 mixed durum, $1.26; No. 2 yellow corn, 93½c; No. 2 mixed corn, 93c; No. 2 white oats, 56½c; rye, 94¾c; barley, 81@82c; buckwheat, $1.90@2.10. At Chicago: No. 2 yellow corn, 75@75½c; No. 2 white oats, 46¼@47c.

The farmer who ships rotten or imperfect vegetables has no right to bemean the commission agent at the other end of the line because he could not dispose of them profitably.

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White & Silver Wyan., White Orpingtons & Black Minorcas	$9.50	$18	$52	$85
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A A

VOL. 111 Founded 1842 No. 14

AMERICAN AGRICULTURIST

$1.00 A YEAR April 7, 1923 5 CENTS A WEEK

Just Pa and Ma

As I View Long Island—By Jared Van Wagenen, Jr.

The Fight in the Pasture Lot

On the Devil's Paint Brush and Other Devils Which Make Waste Land

By WILLIAM I. ROE

"SAY Jim, what in the world do you think you are doing tramping around with a pail out in that pasture?" called a man driving along the St. Lawrence River Road to a neighbor. "Come on over and see for yourself, Roy. This isn't the first spring that I have done this and right over beyond there you can see what has happened," returned Jim.

The man in the pasture—James Peo of Cape Vincent—kept on with his work and when his neighbor reached him he was just emptying out the last of the contents of his pail. "What have you got there" asked Roy. "Just plain 16 per cent acid phosphate" replied Jim, "and that is what I put on that strip over yonder last spring, while up by that rock is where I put on some, two years ago. Come over and I'll show you."

Seeing is Believing

"You see all that devil's paint brush between here and the road—well just look down that rock line and you can see the grass." "Yes Jim, the devil's paint brush seems to be all gone" replied Roy. "Well Roy, the paint brush was thick as hair on a dog all over when I put on the first acid rock back in 1919. I'll admit that I was a bit skeptical for it didn't seem possible that one could get rid of the pesky stuff as easy as that, but the county agent said that it should work, so we tried it. The white clover and blue grass look pretty don't they? It all came in itself too, for we didn't put any grass seed on that place."

Jim Peo is one of the pioneers in pasture improvement in the North Country and in New York State for that matter, for up to that time only a few had done anything towards keeping up the productivity of their pasture land that could not be plowed, aside from putting on an occasional load of manure.

There are two kinds of pasture land in the State—that which can be broken up and reseeded when its production runs down, and the remainder which is too steep, or too stony, or too rough to permit plowing. The latter has had the greatest influence on the dairy industry, for where pioneers found land that was not fitted for cropping they turned to the dairy cow as the means of harvesting the crops of grass that would grow unaided among the stumps. This "cheap" pasture has been a big factor in the production of our dairy products.

A Big Problem

With probably considerably in excess of 2,000,000 acres of this kind of pasture in New York State, the cost of milk production for many dairymen hinges, to a large extent, on the amount of grass that these acres will produce during the pasturing months. At the present time it is no secret that six weeks is the limit of good pasturage on much of the area, as far as the heavy producer of the lacteal fluid is concerned. After that she must be fed from other sources in order to keep her going strong. All of which has a distinct influence on the number of golden sheckels the dairy farmer can hope to keep in his jeans at the close of the year.

In countries older than ours the condition of pastures has been a pressing problem for many years. In agricultural writings of over one hundred years ago, we find that English farmers were concerned with improvement methods. Harrowing was the main standby at that time.

To the right of the stake, pasture top dressed with lime and acid phosphate, note how better growth hides the stones. This is not always the needed application, it may be that a light broadcasting of nitrate of soda or a light application of barnyard manure is all that is necessary. Trial strips tells the tale

A few years ago the advisory committees of some of the dairy-county farm bureaus called attention to the fact that devil's paint brush and other weeds were rapidly taking the place of blue grass and clover in many sections. They urged the need of studies and trials in order to be ready when the mass of farmers needed information as to what steps to pursue to bring the grass back. It was pointed out that financial conditions would require that any methods must be: relatively cheap, efficient, and easy to carry out.

The State College Found Ready

Accordingly county agents got busy. Letters of inquiry to experiment stations all over the United States showed that little attention had been given to this important problem, and that New York State stations were far in the lead. The extension staff at Cornell had carried on sufficient work so they were ready to make suggestions. Farmers were found who had—accidently or otherwise—tried various combinations on pastures, and had results to show. It was learned that the use of stable manure would drive the intruders out, but most men need all the manure on their work land.

Checking of the trials that had been made, showed that the same methods would not work under all conditions. Up in Jefferson and St. Lawrence counties plain 16 per cent acid phosphate was found doing wonderful and almost unbelieveable work. In the southern tier counties, lime was the material that was doing the trick. In other sections a combination of these two materials chased the devil's paint brush and coaxed back the timid white clover and blue grass.

Several Combinations Tried

As a result of all these findings, a number of farmers among whom was our friend Jim Peo, started out to discover which particular treatment would prove best for their soil and local conditions. A strip of pasture liberally besprinkled with paint brush was given an application of ground limestone at the rate of one ton to the acre. An adjoining strip received 300 pounds of 16 per cent acid phosphate (acid rock) to the acre. Next to that, 300 pounds of the acid phosphate and one ton of ground limestone were scattered separately over an acre. In many places a load of manure would be spread in another place. Sometimes the ground was gone over with a harrow either before or after or both, other times an application of a grass seed mixture was made, and occasionally every combination that could be worked out was tried.

Did everyone achieve the mystic result of a luxuriant pasture with a velvety sod of blue grass, white clover, and other good pasture plants? Well—hardly. There were failures, some practically complete and from that all stages up to what might be termed perfection. Many times there were more lessons to be learned from the failures than from the successes. In the North Country alone, there are upwards of 150 farmers who have trials of this kind, which have been put on during the past four years, and other dairy counties have a goodly number.

With all these trials to judge from, it is now possible for the farmer, who is anxious to keep a few more pennies from the milk check that from time immemorial has had the fade-away trick down pat, to figure out just what steps he will pursue. In order to save some of the time he would have to spend visiting, we will proceed to summarize some of the outstanding features.

Selling Fertility

The first thing that most people fail to consider is, that when a pound of milk is sold, some of the farm's fertility is sold with it. 10,000 pounds of milk will remove the equiva-

(*Continued on page 313*)

The East is a dairy country because it is a pasture country, and for that reason pasture improvement means improvement of the dairy business

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending April 7, 1923** **Number 14**

Choosing and Buying a Farm

"Married in Haste, Repenting at Leisure" Applies in Purchasing a Farm

By C. E. LADD

IN buying a farm the first thing which a man must do is to select the region in which he wishes to farm. Different sections of a State or county are adapted for different types of farming. As a result of many generations of experience, farmers in each region have decided upon a certain type of farming which seems to be best adapted to their conditions. The man who expects to farm in such a region should ordinarily be willing to carry on the same general type of farming that his neighbors are engaged in. The man who wishes to carry on a particular type of farming should select a farm in a region where that type is carried on.

Community Interests an Asset

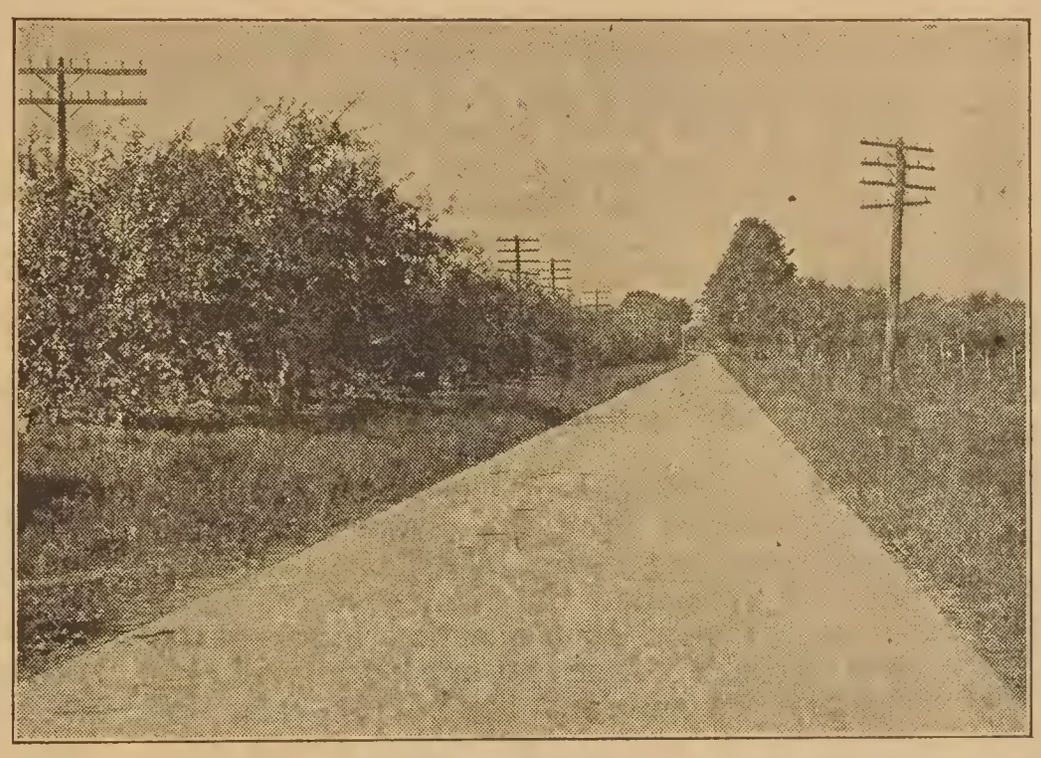
There are occasional instances where individual farmers do very well by farming in a way which most of their neighbors do not do. For instance, one dairyman in a fruit region or one grower of small fruits in a dairy region may do very well on account of good local markets and little competition, even though he is carrying on the type of farming for which the region is not best adapted.

In general, however, the man whose neighbors are engaged in the same type of farming with himself finds that he has many advantages. There is a community of interest, a large collection of individual experiences in the community and the judgments of many other men to draw upon. Labor in this community is skilled in doing the work connected with the several enterprises of the community. It is easier to sell products in a community where those products are raised in large quantities. It is easier to buy fertilizer, spray materials, machinery and other things needed on your type of farm if most of your neighbors are carrying on the same type of farming.

Selecting the Farm

In selecting a region we should pay special attention to the soil, topography, the markets, the means of transportation and the climate. Soil, markets and climate probably do more to determine the type of farming than any other three factors. In selecting a region for a certain type of farming it is well to consider also the regions which compete with this section and what advantages and disadvantages each competing section has.

In looking over a farm, one of the first factors to consider is the size of the farm and the possibility of carrying on a business of profitable size. A very small farm is incapable of returning a large profit unless devoted entirely to intensive crops. A very large farm contains a considerable risk and requires considerable executive ability to make it profitable. All farm management studies indicate that the family-sized farm is much more profitable than the smaller farm or the very large farm. This family-sized farm may be a farm of from 150 to 300 acres in general and dairy farming, and somewhat smaller than this in fruit growing, poultry or vegetable growing. Sometimes it is advisable to purchase a small farm because there is a possibility of renting or purchasing adjoining land some time in the near future. If anyone is considering the possibility of reselling a farm it is well to bear in mind that small farms sell more readily than large farms.



Trying to haul milk, hay or potatoes to market over bottomless dirt roads emphasizes the value of an improved road to any farm property

The size of farm is not always indicated by the number of acres. Other measures are number of crop acres, number of cows which the farm is carrying, the number of cows which the farm can carry, acres of bearing fruit, number of hens kept, etc.

Select a Farm with Good Field Layout

Large, well shaped, level fields which are near the buildings can be worked much more economically than small or crooked or rough fields or those that are far distant from the buildings. With the invention and adoption of each new piece of farm machinery these factors become more important. Sometimes a farm has a very poor field arrangement which can easily be changed. In other cases a poor field arrangement is so determined by stone walls, gulleys, swamps, creeks and other obstructions which are immovable or expensive to move that a rearrangement is absolutely impossible.

If all the manure must be hauled up hill or if all of the farm products must be hauled up hill to the barn, it requires expensive labor. If some of the tillable fields are so far distant that it requires several minutes of travel by man and team before field work is started, then these fields are very expensive to work. If pasture is far distant from the barns, the result is a waste of labor and often a loss of milk flow.

A compact, economical farm layout with large well-shaped, level fields and pasture located within a reasonable distance of the buildings makes a farm worth a great deal more than one with a poor uneconomical layout.

In buying a farm do not lose sight of the fact that you are also buying a home.

The Factor of Good Buildings

With our present wage scales and the present prices of building materials, building work is very expensive. Most eastern farms are so priced to-day that if the owner were to obtain bare land at a reasonable price, construct a very economical house and a very economical barn, yet he could not sell the land and buildings for anywhere near enough to pay for the total cost. Many eastern farms have excellent buildings. If the buildings must be rearranged, the cost of doing this must be added to the cost of the original

(*Continued on page* 321)

Editorial Page of the American Agriculturist

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VOL. 111 April 7, 1923 NO. 14

Milo D. Campbell

IN the passing of Milo D. Campbell, whose death we announced last week, farm people have sustained an irreparable loss.

The success or failure of all cooperative work among farmers depends to a very great extent upon their leaders. What farmers need to-day are leaders from their own number who are men with vision and ability who can stand steadfast against the discouragement which comes from the indifference and criticism of their supporters, and men who cannot be influenced by jealousy, ambition or other selfish motives. Such men are few indeed, but Mr. Campbell measured high on all of these qualifications.

For years Mr. Campbell was president of the National Milk Producers' Federation, and much of the national legislation passed recently for the benefit of dairymen stands as a monument to his skilled and persistent work for it.

A farmer himself, Mr. Campbell understood farmers, and no man in America could express more forcefully or more clearly problems which farmers must meet. None of the thousands of men in the East, as well as throughout America, who were privileged to hear him will forget his speeches which alternated bubbling humor with earnest appeals for farm people to stand as a rock in cooperation to improve farm conditions, but to always keep the needs of the nation above those of any class.

E. R. Zimmer

IT is with great sorrow that we announce the death of our friend, E. R. Zimmer, who died at his home in Syracuse on March 22 of pneumonia.

Mr. Zimmer was, since its organization, the secretary of the New York Holstein Friesian Association, and to his efforts more than to those of any other person, must be credited the progress and success that have been made by the Holstein men through their State association.

Before accepting this position, Mr. Zimmer was manager of the Farm Bureau in Tioga County, New York, where he was known and loved by practically every farmer in the county, and where he worked hard to bring prosperity to the farm people that he served.

Mr. Zimmer was another leader whom farmers could ill afford to lose. His death is especially sad because he was a young man with every indication of long years of effective service ahead of him. His was a quiet, gentle personality, but always strong and steadfast for those principles which he thought right. The many thousands of farm people living from one end of the State to the other who were privileged to know Mr. Zimmer will mourn with us in the loss of a farm leader of ability and integrity, and in the loss of a loyal and worth while friend.

Will Cooperation Destroy Individualism?

AMERICAN individualism has had much to do with the rapid development of our nation's civilization. The necessity of working alone and solving one's own problems without outside help, whether on the farm or in the small manufactories of early times, taught men to think and to develop great power for individual initiative and action.

It is said that the chief reason why Americans are probably the best soldiers in the world is their power to conform to general discipline, but at the. same time use their heads in individual thought and action at the proper time. It has always been hard to throw an American army into a rout, because there was not only the morale of the division or regiment to overcome, but also the morale of every man who insisted on staying and settling the argument individually.

The development of the great manufactories founded upon the division of labor, where workmen in the factories do only one kind of work, and the coming of the labor unions have without question lessened the city laborer's power and opportunity for individual thought and action. It is an interesting question, what effect cooperation among the farmers will have in interfering with individualism.

Herbert Hoover, in a recent interesting little book called "American Individualism," raises the thought of whether or not our enthusiasm for organization is to mean "a new sort of tyranny destroying the foundation of individualism."

We agree with Professor Carver, the great economist, when he says, "I think we should not be too hasty in applying the cooperative principle to the production end of farming. Obviously, you can't roll a steel rail in a blacksmith's shop; a large mill is needed. But there are kinds of work that can be done better on a small scale, and this appears to apply to farming, despite all the talk we hear about syndicating the business. I don't think you can beat the one family farm."

On the other hand, all of us have come to realize that cooperation is absolutely necessary on the sales end. But the proper kind of cooperation, even in the sales of farm products, will aid and strengthen individual effort if there is mutual confidence in and between officers and rank and file, if there are no secret closed sessions of a select few, if the management listens carefully to all the suggestions from the membership and if the membership attends meetings and takes an active part in the affairs of the organization.

A particularly good example of the recognition of the individual member by a cooperative organization is the plan now being carried out by the Western New York Fruit Growers' Packing Association. Through its board of representatives and its executive committee, it has elected by informal ballot eight special committees with a total membership of approximately twenty-five men. These men have been carefully chosen, not only for their constructive leadership and suggestions, but so as to represent nearly all of the local units and the special problems of the organization.

These committees include four commodity committees which are to deal particularly with the special fruit commodity problems. They also include committees on production, finances, organization, and purchase of supplies. Most of the committees have already met, and the best thought of some of the best fruit growers in Western New York is being earnestly given to the solution of many vexing problems. Not only will this result in the nearest approach to the solution of these problems as is possible at the present time, but what is more important it is certain to strengthen the confidence of the individual member in his organization and in its management and will build up a real cooperative spirit and develop an individualism alive to public service as well as to its own opportunities.

Shall I Invest In Land?

IN 1910, the population of the United States was, in round numbers, 92,000,000 people. In 1920, it was 105,000,000 and it is now estimated to be better than 110,000,000. In other words, we have had an increase in our population in thirteen years of nearly 19,000,000 people. The Census of 1920 showed that from 1910 to 1920 rural population, including small villages, increased 3.2 per cent, while the city population increased 28.8 per cent. If we are to judge by history of other countries, there is every reason to believe that the people will continue to increase in number and that the city will grow faster than the country. While this great body of consumers has been increasing so rapidly, the cheap, abundant, fertile lands, the great food reservoirs of the country have been decreasing, and there are no more that can be developed except at high cost per acre.

There is but one conclusion to all of these facts, and that is, the demand for agricultural products must steadily increase. This is a valuable fact to keep in mind to add to the points made by Dr. Ladd in the feature article in this issue on buying a farm. If the farmers of America, of the present and future, are intelligent enough to make sure, through organization or other good marketing methods, of obtaining their just share of the consumer's dollar, then the future of farming must be better than it has ever been in the past.

We believe that this is a good time to invest in land, providing that investment is carefully made at conservative values, and providing also that it is made, not with the hope of large immediate returns, but rather with the assurance that the large increasing demand for agricultural products will insure the farmer of the future who uses intelligent production and marketing methods as adequate return for labor and capital wisely invested.

Look Out for San Jose Scale

ON the next page we have taken great care to work out some seasonable directions for treating seed and for spraying orchards. We call your especial attention to this page and suggest that you preserve it carefully for reference at future times when you may need it.

In connection with spraying, may we suggest to apple growers that the San Jose scale is again spreading very rapidly and that special attention should be given this year to spraying for its control. At one time the San Jose scale threatened the entire apple industry of the East, but the persistent use of lime-sulphur or scalecide overcame the menace until the spraying was discontinued. Now the scale is gaining ground again.

Seed Treatment and Spray Schedules

Directions for Controlling Diseases That Cost Farmers Millions—Save This Page

By FRED. W. OHM

THE problem of fighting crop enemies such as insects and diseases, has become as important in our agricultural practices to-day as fertilization, rotation and other farm practices. It is a fact that to-day we have more plant diseases and noxious insects to contend with than years ago. They have been imported one way or another from foreign lands. Whether or not this could have been avoided and who was to blame, does not help. The fact is, we have the diseases and the insects and they must be combatted.

The fruit man knows full well that if he attempts to market wormy apples he is up against a stone wall when he has to compete with men who are selling clean fruit. The man who has scabby potatoes finds that his produce goes begging when he places it in competition with clean stock.

The fight is not only against the insect and the disease. The elements must be taken into consideration. Some years the weather is directly responsible for the more rapid development of plant diseases, consequently greater activity is required on the part of the farmer to keep the spray rigs going and to keep the plants covered with a film of poisonous material. To completely cover the entire spray schedule of every crop would take many, many pages. However, American Agriculturist is devoting this entire page to a few fundamental crops that suffer severe annual losses due to diseases that are easily controlled. It is suggested that readers of the American Agriculturist remove this page from the copy and tack it up in some place where it will be available for use as a source of information.

Period for Spraying	Materials in Spray Mixtures	Insects and Diseases Affected
Delayed Dormant When buds show green at tips	Lime-sulphur (1-8, winter strength)	San Jose Scale Blister-mite
	To each 100 gallons add: Lead arsenate 4 to 6 lbs.	Bud moth Leaf rollers Casebearers
	Nicotine sulphate, ¾ pint	Aphids
Blossom-Pink When blossoms show pink	Lime-sulphur (1-40, summer strength)	Scab
	To each 100 gallons add: Lead arsenate 4 to 6 lbs.	Green fruit worms Bud moth Leaf rollers Casebearers
	Nicotine sulphate, 1 pint	Dark apple red bug
Calyx When last of petals are falling	Lime-sulphur (1-40, summer strength)	Scab
	To each 100 gallons add: Lead arsenate 4 to 6 lbs.	Codling moth Green fruit worms Bud moth Curculios Lesser apple worm
	Nicotine sulphate, 1 pint	Dark and bright apple red bugs
Later sprays to be determined by weather conditions. Two sprayings often made are (1) two to four weeks after calyx spray, and (2) about the 1st of August, when the second brood of codling moth appears	Lime-sulphur (1-40, summer strength)	Scab
	To each 100 gallons add: Lead arsenate 4 to 6 lbs.	Codling moth Curculios Lesser apple worm Apple maggot

Schedule for Spraying Apple *N. Y. Expt. Sta. Cir. 57*

Treating Oats For Smut

THE smut of oats has probably been responsible for greater losses in crop production than any other preventable crop disease. This is due no doubt to the fact that smut is rather inconspicuous at harvest time and does not injure the quality of the threshed grain. Due to this growers often declare that they have no smut in their oats when, as a matter of fact, they may be loosing from 5 to 25 per cent of their crop. This neglect coupled with the enormous production of oats in this country is estimated to total up an annual loss of 50,000,000 bushels.

Seed treatment of oats for smut is easy and effective. There are several methods, but the easiest, most convenient, and still effective method is to sprinkle the oats with a solution made by adding one quart of formaldehyde to 40 gallons of water. Before treating the seed, it is run through a fanning mill and subjected to a strong draft which will remove smut balls and light grain. The cleaned seed is spread on a perfectly clean floor, which has preferably been sprinkled with the formaldehyde solution previously, using a common sprinkling can.

The grain is then turned over and over by shovelling until every kernel is well moistened. The oats are finally shovelled into a conical pile and covered with blankets or canvasses that have been moistened with the solution. It is allowed to remain thus for several hours or over night. After it has remained in this state for the specified period, it can be sown by hand immediately or dried in order that the grain will run through the drill more readily. Obviously the rate of seeding in the drill should be somewhat increased to allow for the swelling of the seed.

If the treated seed is not used immediately, it must be born in mind that the grain should not be stored in bins or sacks unless such storage places have also been treated with the formalin. In purchasing formalin it is well to make certain that the material purchased is 40 per cent strength, which means that it contains 40 per cent of formaldehyde gas by volume. This material can be procured at the local drug store. It is interesting to note that several commercial seed firms are putting treated seed on the market.

Seed Potato Diseases

OF all the diseases of potatoes, scab and rhizoctonia are most prevalent and take enormous tolls in our annual yields. Scab is so common that a description of this disease is needless. Rhizoctonis is not so generally known, although it is just as prevalent. This latter disease may be identified during the growing season by dwarf plants that show a weakened and stunted growth. Later in the season and at digging time, it may be identified by a large number of small tubers just near the surface of the soil.

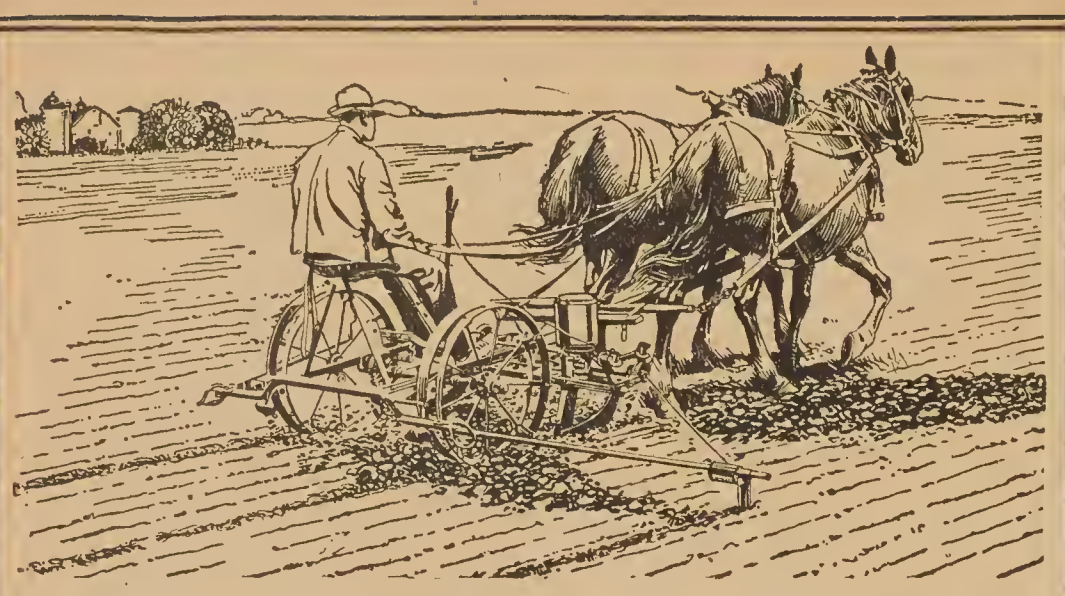
This disease attacks the plant at the surface of the soil, rotting away the stem. In its attempt to grow and reproduce, the plant throws out branches from buds just below the surface of the soil, known as adventitious buds, which develop into new stalks and break through the soil. These are also attacked by the diseases and other branches start from this second sprout. In the meantime in its attempt to reproduce, the weakened plants throw out small tubers that adhere closely to the stem.

The treatment to control scab is not necessarily the same as for rhizoctonia. If a grower knows his seed is not infected in any way with the rhizoctonia, he need only treat with formalin. In this treatment, formalin is used at the strength of one pint of 40 per cent formaldehyde to 30 gallons of water. The seed is immersed two hours in the solution. The formalin is nonpoisonous and can be used in metal as well as wooden containers. The same solution may be used for five or six different batches without loosing much of its strength. However, rhizoctonia does not yield to the gas of formaldehyde so readily and therefore must be treated with a more severe remedy, which in this case is corrosive sublimate. In view of the fact that corrosive sublimate will also kill scab, it is not necessary to use both materials. It is a case of killing two birds with one stone.

Corrosive sublimate (mercuric bicloride) is a deadly poison and must be handled accordingly. It comes in tablet form and must be kept where children or persons who are ignorant of its effect, will be unable to confuse it with ordinary pills. Furthermore, corrosive sublimate reacts with or corrodes metals and for that reason only wooden or earthenware containers should be used. In mixing the solution, 4 ounces of corrosive sublimate are dissolved in 30 gallons of water.

Due to the fact that the solution loses its strength rapidly, in contrast to formalin, it is only good for three different batches of potatoes. The first batch is immersed for a period of approximately one hour and twenty minutes; a second for a hour and a half; and the third for a hour and three-quarters.

When the solution is no longer needed, it should be disposed of in such a manner that farm stock will have no access to it. After the seed has been treated, it is spread out on the floor to dry and is then ready to be cut previous to planting. To simplify matters in treating seed potatoes, it pays to have five or six water-tight barrels on hand, each one having a bung or spigot in the side, near the bottom. All are placed on a platform as high as a pail to draw off the used chemical. All the barrels are filled with potatoes to be treated, except one, which is used as a reserve when changing potatoes in the barrels.



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As I View Long Island

Where Farmers Do Things Differently

By J. VAN WAGENEN, JR.

IT was a good many years ago — so long ago that the incidents and impressions are becoming pretty indistinct in my memory—that I first went out on Long Island for Farm Institute work, and, from time to time during the intervening years, I have had the opportunity to see and study the agriculture of this entirely unique section of our State, and just in early March I went again. Now, I do not want to slander the Island. I have been over it from end to end, and from side to side, by train and automobile, but it seems to me that about half of it is scrub oak and scrub pine, of which every acre looks exactly like every other acre. It is strange, it seems almost unbelievable, that within 30 miles of the giant city and in a region which has been settled almost from the earliest years of this country, deer still run wild. Probably Suffolk County has more continuous area of woodland than any section of our State outside of the Adirondacks.

J. VAN WAGENEN, JR.

Made by a Glacier

THE geologists say that the island represents about the most southerly advance of the ice sheet during the glacial epoch. The backbone of the island is really a terminal moraine—a deposit of sand and gravel ground up by the ice and reworked by wave-action in the Atlantic. Much of this gravel is so coarse and has so little available fertility and such slight water-holding capacity that it is almost valueless for agricultural purposes. Parts of the region are made up of gravel so coarse and open that the rain sinks down through it instead of running off, and hence there are no permanent streams. Much of the island carries a low, scrubby forest growth, mostly oak and pine. In it there are clearings with clusters of shabby little houses where a class of strange and hardy denizens make their homes.

The most distinctive and profitable use of these pine-barren areas is to "put them out for sucker-bait." It seems to be a highly developed form of obtaining money under false pretense, and yet, upon the whole, it is within the law. In brief, the procedure is to acquire a tract of land—where it is or what it is good for doesn't matter—proceed to organize a development project, cut some "avenues" through the pine brush, in some cases even going so far as to lay a little shoddy concrete sidewalk, and then proceed to sell building lots to any sucker that can be induced to bite. There may be a forlorn shack or two somewhere within sight.

Where Land Sharks Thrive

IN the city office of the project these wildernesses will be represented by beautiful maps with romantically named avenues and glowing literature setting forth the advantages of every man owning his own villa and sitting under his own vine and fig tree while his brow is fanned by the pine-scented and health-bringing breezes of the island land. The buyers are suckers indeed. Sometimes the promoters run free excursions with free entertainment thrown in as a special inducement to decoy the suckers in large numbers. The whole business is either funny or pathetic, according to how you look at it. Of course, it is only the initial payment that they are interested in.

I am told that a very large part of the county court business in Suffolk County is the sale of these holdings for back taxes, and in many cases it is impossible to obtain any offer for the property. It is an interesting commentary upon the helplessness of some city men when they come to deal with rural things, and it is also a question if our laws ought not to give some sort of protection for these babes in the woods who are simply the prey of unscrupulous sharpers.

Changes Taking Place Rapidly

OF course, in a region lying close to a great city like New York, where real estate is very active, sweeping changes are taking place. There are parts of the island where land values, even in big acreage, are very high. This is true of the fashionable locations such as the Wheatly Hills, the water front on the South Shore and the Shinnecock Hills.

Many of us will remember in our old school history the statement that Manhattan Island was once purchased for the equivalent of $24.00. Well, I was told that a big part of the Shinnecock Hills was once bartered for a yoke of steers. I might add that from a strictly agricultural standpoint, the man who swapped away the steers got "stuck." Now it is said that a syndicate has taken over a part of them for six hundred thousand dollars. Somehow — I cannot tell why— these low, rounded hills are totally different from the rest of the island, and have a strange, restful beauty all their own. I don't wonder that rich men like to crown them with wonderful homes.

There is one natural feature of the island so unusual that it constitutes one of the riddles of geology. Some 20 miles east of Brooklyn and covering an area some five or six miles square is an almost perfectly level region known as Hempstead Plains. The interesting feature is that it is entirely treeless and covered with a tough sod. A condition like this is so unusual outside of the Mississippi Valley that it has been accounted for in various ways. One theory was that the land had been cleared, possibly by Indians or by white men, so long ago that the very memory of it has been forgotten.

Still a Problem

MEN who have studied the Plains in the light of geology and botany are agreed that this is an area that "was captured by the grasses at the close of the glacial epoch, and they have held it so tenaceously that tree growth has never been able to establish itself." Of course, this is nothing more than occurred on hundreds of thousands of square miles in the prairie states, but then one does not expect natural prairie on the Atlantic Coast. The Plains have a surface soil that is dark in color and looks fertile, but they tell me it is not. The subsoil is coarse, open gravel, and their agricultural value is low.

Now, I do not wish to convey the idea that Long Island is only a strip of sand and gravel and scrub woodland.

AS THE UP-STATER SEES IT

THIS is the first of two articles by Mr. Van Wagenen on Long Island, its agriculture and its people. Mr. Van Wagenen has visited Long Island many times and has had the opportunity to view practically every representative feature of the Island. The agriculture of Long Island is radically different than that of any other part of New York State. Its farmers take more of a gambler's chance than the average farmer. When their crops are ready, they have to sell whether the market is good or not, for few if any of their crops can be held for a better price. It is a simple matter of trusting to Providence. They handle perishable products, produced on high-priced land with purchased food. Although the upstater's farm income is not as great, it is more certain than that of the Long Islander who either makes big money or loses heavily. Mr. Van Wagenen's second article on Long Island will deal with some of its people.

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This characterization would be true of the center of the island. There is some good land around the western end, but more and more it is being converted into building lots or taken over for great country estates. I remember when Hicksville was the center of a tremendous "cuke," or pickle industry. No one ever speaks of "cucumbers" where they grow them, but always "cukes." Now, various causes—perhaps most of all the cucumber blight—has largely extinguished the business. Expressed in square miles of cultivated land on the "East End" is not so very important, but expressed in terms of production and values per acre, it is most impressive.

The North Shore grows a great variety of crops—some of them very special ones. The outstanding products are potatoes, cauliflower, cabbage and cabbage seed, Brussels sprouts and lima beans. In growing cabbage seed, the mature heads are pulled in the fall, thrown into windrows in the field and covered with earth enough to prevent hard freezing, and then reset in the spring. Further east, on the northern fork of the island, is Point Orient, with much celery and onions, and a large development of overhead irrigation. On the North Shore dairying is well nigh unknown.

A Thought for the Dairyman

AT Grange dinners it has amused me to see these very prosperous people taking the color out of coffee with the contents of tin cans of condensed milk. Luce's Favorite, the corn which has become so very popular as a variety for up-State ensilage, was originally confined to this locality.

The South Shore, especially "The Hamptons," have a much less diversified agriculture. Indeed, it is mainly made up of potatoes and then more potatoes. Only the other day a man confessed to me that they did grow some patches of corn and hay, but added that they generally managed "to keep them back out of sight." Everywhere on the island men are using quantities of commercial fertilizer, which seems unbelieveable to us dairymen. It is not a wonder-tale, it is the simple truth, that for potatoes on the South Shore the usual dose of fertilizer is from one to one and one-quarter tons per acre, and this amount is of high-analysis "complete" brands. It is true everywhere that the men who have learned to use the most fertilizer use the highest priced formulas. The South Shore has a good many foggy mornings, and high humidity, which favors the blight fungus and insuring the potato crop, means spraying with a thoroughness and frequency which up-State growers can hardly understand. The island depends almost wholly upon seed from Maine, Northern New York and Vermont. One large grower told me that the community experience with Vermont seed had been especially fortunate. While purchased seed has been the almost universal rule, the fact that this year there is plenty of native stock at rather low prices, while the imported seed is relatively high, will lead to a considerable use of the home-grown seed.

Potatoes go in Early

POTATOES on the South Shore are planted at the earliest possible date—not in an effort to catch the early market, for the business as a whole is a main-crop proposition, but because experience has shown that early planting gives best results. Two years ago many potatoes were in on St. Patrick's Day, but mid-March planting does not happen this year. On the evening of March 7 we had to both shovel and push to get two miles with an automobile, but I ought to add that a condition such as this is almost without precedent. The South Shore has the warmest—I will not say the best—climate in the State. According to the data of the Weather Bureau, the average date of the last spring frost is April 20, and the first frost in the fall is October, or more than 200 days between frosts, as compared with only 120 days on the high lands of Central New York and only 90 days in the Adirondack sections of the State. It must be nice to live where you don't have to worry about the corn frosting before it is fit for the silo. A climate like this makes possible a considerable list of crops that have no real place

(*Continued on page* 317)

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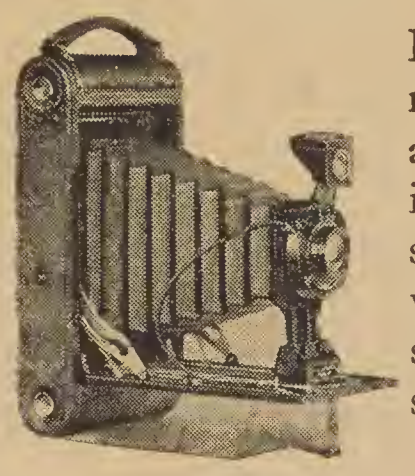

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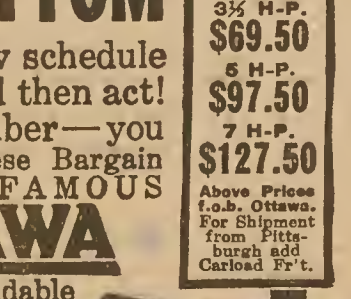

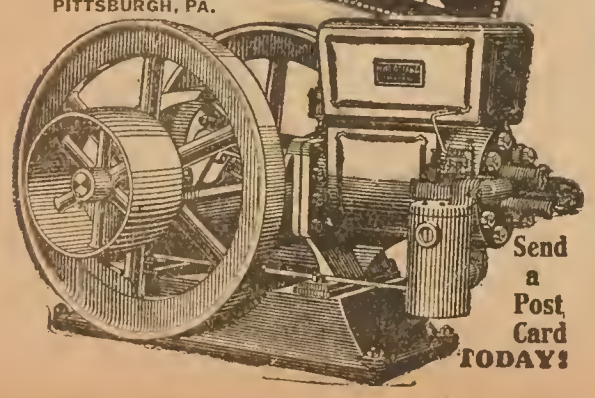

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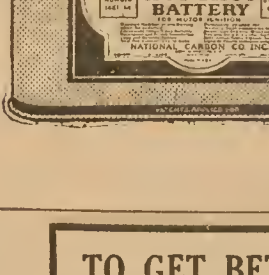

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Growing Heavier Oats

This Farmer Did It With Little Extra Effort

By W. E. FARVER

IN sections where winters are long farmers prefer crops which require cultivation, as corn and potatoes, to be followed by oats, grass to be seeded in the oats as a catch crop, rather than follow oats with wheat. Some farmers succeed quite well by omitting wheat from the rotation even where winters are not severe. But I am not ready to admit that it is the better plan in order to secure a good stand of grass and clover. We do not consider oats a desirable companion crop for young grass. Wheat, rye or barley make for better nurse crops. I will concede that in sections where seasons are short and winters long and severe, farmers are quite wise to adopt a shorter rotation better adapted to their climatic conditions.

The old reliable rotation of corn, oats, wheat, clover and timothy, is a good one where the farmer desires to make oats a part of the rotation. The clover and timothy are seeded in the wheat. Rye may be substituted for the wheat. In this plan, the preparation of the soil is so managed, when seeded to oats, as to make for best results when seeded to wheat following the removal of the oats crop. This calls for the plowing of oats ground at times when it is not too wet or early enough, so it will yet freeze out thoroughly.

Oats ground plowed too wet will not bring good oats, and will cause fall preparation for wheat to result in cloddy soil. Beware of plowing too wet. You will wish you had not done it, regardless of the crop grown.

Acid Phosphate the Preferred Fertilizer

SOME few farmers here use a complete fertilizer. Others use only a phosphorus carrier which is most easily obtained in 16 per cent acid phosphate. Personally, we favor the acid phosphate where soil is good to really fertile. It insures a better yield of grain and less tendency to soft straw that will go down before cutting time.

I happen to think now of a farmer who uses no 16 per cent acid phosphate and is bitterly prejudiced against it. On a piece of ground which brings bumper corn crops, the oats and wheat lodge before they ripen, and usually cause severe loss to him. The soil is rich, but the straw is too weak to stand up under all sorts of weather. Usually a complete fertilizer is used, which greatly aids in causing the grain to lodge. It is certain that if he would use acid phosphate his crop would likely stand up better and ripen a week to ten days earlier, with a possible heavier yield.

Where soil is not fertile, it is a good plan to use a complete fertilizer, but it should analyze pretty high in phosphoric acid, since it causes stiffer straw and an earlier ripening. All this is desirable in an oats crop. We use fertilizer quite liberally, and feel certain that in most instances it pays to use anywhere from 150 to 300 pounds of acid phosphate per acre. On thin soil, use a like amount of complete fertilizer. As before stated, phosphoric acid hastens ripening, which is decidedly desirable when we wish to use the oats ground for wheat. The earlier wheat ground is plowed, the better are the chances for a wheat yield.

Oats a Cool Weather Crop

IN most localities, whether we follow oats with wheat or grass, it is a good plan to sow the oats early, as oats is a cool-weather plant, and it will develop better in the early summer months. If grass is sown, it will also do better if it makes a good start before the hot summer days begin. It is our practice to sow oats as early as we can, depending on the fitness of the soil to till. We have raised good oats that was sown in March, however, March-sown oats are an exception rather than the rule. If we can sow the oats between April 1 and 15, we feel that we have made a good beginning. Oats sown during the latter half of April stands a good chance. But it is far from desirable.

Early sown oats means that the crop is out of the way for giving proper attention to the corn crop, and that there is a better opportunity for preparing the seed bed for wheat in the fall, as well as greater chances for a good yield. Late oats rarely yield well.

In plowing corn stubble for oats, we aim to plow deep enough to throw on top all the sod turned under the previous spring for corn. Thorough disking and harrowing gives a firm, mellow seed bed, which conserves moisture for the growing crop. We sometimes use the roller on oats ground previous to sowing, permitting the roller to precede the drill. As a rule, however, we run the roller over the fields when the oats is from 1½ inches to two inches high. We have followed this practice for a number of years with very good results, and so have neighboring farmers.

Clean, Treated Seed Essential

THERE is more connected with the choosing of a suitable variety of oats than many suspect. There are varieties especially adapted to all sections. It is our duty to find which variety is most suitable for our immediate section. Here in our county, farmers have been very enthusiastic and persevering in their efforts to find the one best variety suited to our section. Many varieties have been tried out here, but the variety known as Ohio 8453 has proven best adapted for us. Through the efforts of the county agent, this variety has been brought into our midst. In choosing a variety, it is well to consider early ripening, a medium-sized stiff straw, combined with a heavy yield.

We would not think of sowing oats without first running them over a fanning mill, using a good blast of wind to drive out the light grains and chaff. It is very easy to get a grade of oats in this way that overruns in weight.

We aim to have well-cured oats for seed. We like it from shocks which had little or no rain. For best results, it should be stored in a dry, well-ventilated bin. We find this necessary to good germination. We also find it pays to test the seed previous to sowing and also previous to treatment for smut, for we find from experience that we dare not omit the formalin treatment. We have used both the wet and dry treatments with equally good results, but prefer the dry treatment because of the less work connected.

Usually farmers who hurry through their work give the oats crop more promises than real honest-to-goodness labor when preparing the soil, and then wonder why the crop responds likewise. The secret lies in the fact that oats, like all other crops, will bring yields, compared to the care, interest and attention we give it.

SEED SPECULATION IS COSTLY

Seed brokers, jobbers and dealers throughout America continue to speculate on seed, sometimes with gains to themselves and sometimes with losses. Their speculations pertain strictly to the cash value of the seed, hence their gains and losses are limited to market fluctuations.

On the other hand, the farmer is speculating on the productive value of the seed he buys, and if things are going bad, he has no way of getting out. For instance, if he has planted the seed and he later finds to his sorrow that it is not productive or adapted, he cannot sell the seed and take a partial loss, but faces the loss not only of the full value of the seed, but also of a crop far greater in value than that of the seed. He has no way of covering on his loss or of quickly selling out, but must stand by and take the loss.

Buying seed where the quality and vigor is not known, is a gamble. It is an impossibility to accurately forecast future prices. However, it is not only possible, but practical to forecast the future productivity of the seed.

Farmers' experiences, together with the demonstrations conducted by the various farm bureaus and agricultural colleges, have clearly brought out the fact that buying seed without the origin and quality being known, is taking a big, costly gam[illegible]

The Fight in the Pasture Lot

(*Continued from page* 306)

lent of around 100 pounds of acid phosphate, 30 to 40 pounds of limestone, as well as nitrogen and potash. With the milk production most dairies get during the late spring and early summer, it is easy to figure out why lime and acid phosphate seem to be needed by many pastures. In addition, from 300 to 500 pounds of lime are removed yearly from an acre by leaching brought about by the rainfall. Where young stock are on pasture, the plant foods are used up rapidly. A 1,000-pound animal sold removes a slightly greater amount than 10,000 pounds of milk.

Another reason for attention to pastures in sections where limestone is lacking is that the blue grass grown where there is plenty of lime contains three times as much lime as that growing on sour soils. This means that it is going to be much harder for the farmer with the acid or sour pasture to produce a thrifty, hard-boned animal until he has done something to build up the lime content.

It has been learned that the reason for the paint brush and other weeds coming into many pastures so freely is that they are nature's scavengers, and can live where some plant food necessary for the growth of grasses is lacking. The grass plants, becoming weak through this lack, are easily driven out by the stronger growing weeds. Thus the problem of the "devil weeds" is solved, once the stocks of plant food have been built up to a point where bluegrass and clover will thrive. If work is started before the pasture becomes too poor, the weakened plants will usually come back without reseeding. Lime and acid phosphate will turn the trick, for most soils of the dairy sections have an abundance of potash, and the clovers will supply the nitrogen, once they have been coaxed back to life.

Briefly summarized, the lessons learned from a tour or inspection of the many trial strips of surface improvement are somewhat as follows: Where the soil contains sufficient lime —and this can be easily ascertained— the application of 16 per cent acid phosphate at the rate of 300 to 400 pounds per acre is usually sufficient. At present prices the cost of the material for an acre will not exceed $4, and the effect should last for at least three years or more.

Where lime is lacking, an application of one ton of ground limestone will often produce results. The cost of this will vary greatly, according to the distance from the quarry. Approximately, $2.50 bulk to $5 in sacks, plus freight, will cover the range of the cost of a ton in most cases. Many pastures, though, are lacking phosphorus as well as lime, and the use of 200 or 300 pounds of the acid rock should be a paying investment. The lime should last from six to ten years before renewal is needed.

As for time of application, the lime and acid phosphate can be put on at any time, although slightly better results may result from fall or early spring treatment. This will enable the dairy farmer to make his pasture improvement work a more or less in-between job. Climatic conditions during the year of application will have some effect on results. The old sod may be gone over with a drag either before or after the lime and phosphate is applied, but this does not always show definite results.

Where the pasture has gotten very poor, and the plant life gone with the exception of the weeds, some grass seed may be necessary. This must be applied very early in the spring, preferably while the ground is honeycombed. The use of a drag when seed is applied is a very good thing. The grass mixtures that are recommended by the Extension Department as being the best are as follows:

Where land is suited for red clover, or where sufficient lime has been applied to make it suitable—

Timothy	8	pounds
Red Clover	5	"
Alsike Clover	4	"
Kentucky Blue Grass	4	"
Meadow Fescue	4	"
Orchard Grass	4	"
White Clover	2	"

For land unsuited for growing red clover, the mixture is changed by eliminating red clover, increasing the alsike, and changing the grasses to suit the conditions. A recommendable mixture is as follows:

Timothy	8	pounds
Red Top	4	"
Alsike Clover	6	"
Canadian Blue Grass	4	"
Orchard Grass	4	"
White Clover	2	"

From one-third to one-half of the mixture selected should be used on an acre the first year. The following spring another application of like amount should be made. These mixtures are also the best for seeding down plow land when it is intended to turn it into pasture later.

With all these things accomplished, the matter of succulent pasture for the future is left in the hands of nature, to be worked out in her own way and in due course of time.

DO YOUR SEEDINGS WINTERKILL?

How many times have you seen your seedings go into the winter in fine shape only to find them dead in the spring? Thousands of New York farmers have experienced the disastrous effects of such winterkilling, suffering considerable financial loss from idle land; no returns from labor or seed; increased feed bills and decreased milk checks, all due to the fact that the clover and alfalfa seedings failed to survive the winter.

The United States Department of Agriculture, several state argricultural experiment stations, and numerous farmers have proved that much of the winterkillings of clover and alfalfa is due to the use of unadapted seed. During the past two years, about 1,000 carloads of clover seed and 8,000,000 pounds of alfalfa seed have landed at our esatern seaports. Much of this seed was produced in Italy, Southern France and South America, and is not adapted to the rigorous climate of New York.

Adaptation is one of the most important factors influencing crop production. It is impossible to look at the seed and decide whether or not it is adapted. The only way of being certain is to positively know the heredity of the seed, which means tracing the seed back to the point of production.

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"Tune In" on April 11

A. A. Starts Radio Farm News Service

By HENRY MORGENTHAU, JR.

I AM pleased to announce that beginning Wednesday evening, April 11, the American Agriculturist in cooperation with the American Telephone Company through its broadcasting station WEAF will start a series of talks of special interest and value to farmers.

E. R. Eastman, editor of American Agriculturist, will open the series, which is planned as an experiment, to find out just how radio can best serve the farmers' interests. Mr. Eastman will speak at 7:30 P. M., April 11, to all farm people who tune in at that time for the WEAF program.

Mr. Eastman will emphasize the wonderful possibilities that the radio has for farm people, that the great invention is just in its infancy, and that Western farmers are already using it to a much greater extent than Easterners. He will announce the arrangement of cooperation between the Telephone Company and the American Agriculturist, an experiment to serve farmers through the radio, and if the farmers respond to this experiment, they themselves can largely determine the future usefulness of this great invention.

News the Fundamental Aim

One of the fundamental aims of American Agriculturist is to distribute through its columns the latest news of greatest interest to farmers, this news to be written and interpreted entirely from the farmer's standpoint. The daily newspapers are good and every farm family should have one, but they are written too often by and for city people and do not handle or interpret the news from the viewpoint of farm folks. Moreover, it is difficult, no matter how much reading of the newspaper one does, to get an accurate and concise idea of any situation like that which American Agriculturist recently summarized on what is taking place in the Ruhr Valley. Farmers are taking a part themselves in public matters and public affairs as they never have before, and, as I see it, it is a function of the farm papers to take the lead in reporting and interpreting these public events of such great importance.

It is this thought of reporting the farm news that led us to make this temporary arrangement for broadcasting farm news. In Editor Eastman's first talk, he will illustrate how the radio might be of service to farmers in giving and interpreting the news, by briefly explaining the credit legislation which has just been passed by Congress, and how such legislation might be of use to Eastern farmers.

No subject is of greater interest to farmers in New York State than that of the recommendations of the Committee of Twenty-one on rural schools, and of the Bill now in the New York State Legislature containing those recommendations. A discussion of this subject will be particularly interesting to farm women and American Agriculturist will broadcast on some Wednesday evening a discussion of the Rural School Bill.

An Aid in Production and Marketing

While the agricultural news will be the chief feature of American Agriculturist broadcasting service, yet Mr. Eastman will show in his first talk of what great value the radio can be in making timely suggestion to farmers on both the production and marketing ends of their business. For instance, the San Jose scale, which once threatened the entire apple industry of the East, is now again rapidly spreading. Mr. Eastman will mention this fact as a matter of news, and suggest that the persistent use of lime sulphur, or scalicide, applied just before the buds begin to swell, will hold this pest in check.

Other members of the American Agriculturist staff will lend their aid to make the Wednesday evening farm program broadcasting interesting and valuable. The farm women will be interested in Miss Gabrielle Elliot, household editor, who will gossip over the radio about those things of interest to farm women, about which mere men know little and care less. The service will probably include broadcasting messages from those genial farm philosophers, well known and loved by farm people throughout the East, Jared Van Wagenen, Jr., and H. E. Cook.

If the interest and appreciation by farm folks justifies a continuance of the American Agriculturist and American Telephone Company farm radio service, it will be possible to have messages from farm leaders such as Enos Lee, President of the State Federation of Farm Bureaus; Mrs. Bridgen of the Home Bureau, Dean Mann of the State College of Agriculture and many others, including possibly talks from New Jersey and Pennsylvania and national leaders.

These are just a few plans showing some of the possibilities for a farmers' real radio service. Whether or not we can continue it will depend largely on the interest of farmers themselves.

WESTERN NEW YORK NOTES

ALVA H. PULVER

The first half of March was favorable to the wheat growers of the Genesee Valley, as a generous blanket of snow protected the young plants from the heavy winds. A heavy acreage of wheat is reported in the valley in spite of the flat prices prevailing last fall, and if all goes well from now on a bumper crop is in prospect.

C. A. McVean and others of Le Roy interested in the preservation of wild game have just released 20 cock and hen species of Northern Quail on the preserve near Le Roy. There are no Northern Quail in this part of the State outside the new arrivals from Michigan.

In the Olean district the veterans of the maple syrup industry are only looking for a poor season this year. The heavy snow, coupled with midwinter rains, put on a coat of ice while the ground was not frozen deep enough to provide a good flow of sap. Only a cold spell after a thaw will start the sap working through the trees. Trees already tapped indicate but limited flows. In the southern tier of counties, prices this season are expected to run at approximately $2.25 per gallon for syrup and from 28 to 30 cents a pound for the sugar.

One of the most pretentious reclamation projects in the Arkport and Burns district yet put through is under way whereby an outlay of about $85,000 will be made for the complete reconstruction of the drainage system, restoring not only the 700 acres now given to cultivation, but opening up 300 virgin acres. This makes it the largest project of its kind attempted in Western New York for some time. Originally the muck area was a swamp running from Arkport northward several miles. By a cooperative effort several years ago a drainage ditch was put through, draining about 700 acres into the Canisteo River.

The spraying of potatoes last year under the direction of the Onondaga County Farm Bureau increased production 62 bushels an acre for members of five spraying associations, with a total of 300 acres. As a result of this success, meetings have been held by the East Camillus and West Camillus associations for pooling orders for copper sulphate and arsenate of lead. The spraying associations of Elbridge, Baldwinsville and Little Utica will soon hold similar meetings.

Genesee Co.—We are all thankful that the spring weather will soon be with us again. We have had a winter that was far more serious than we have had in many years. For nearly four months the snow has been deep and at times traveling was out of the question. Prices of farm products are on the upward trend. Potatoes are now bringing 60c a bushel, beans are 7 and 8c a pound, and wheat is selling at $1.30. There has been a great deal of sickness in this section during the past few months. We are hoping that with the coming of milder weather there will be an end to it.—J. C. J.

Urge Reciprocity on Truck Licenses in New Jersey and Pennsylvania

W. H. BULLOCK

COMMITTEES of New Jersey and Pennsylvania farmers from the Delaware River Valley waited upon Governor Pinchot at Harrisburg, Pa., last week, in an effort to bring about further reciprocity between the two States on the matter of motor truck licenses. New Jersey farmers who use Eastern Pennsylvania markets, such as Philadelphia and Easton, have been handicapped by the Pennsylvania law which allows motor trucks with New Jersey licenses to enter the State 15 days in a year, but only for a period of one day a week. Eastern Pennsylvania farmers, on the other hand, who use the Phillipsburg, Trenton and Camden markets have likewise been handicapped by the New Jersey law which allows but 15 days in the State, which days may be consecutive if desired.

The committee from New Jersey which is working upon this reciprocity represents such bodies as the New Jersey State Grange, the Federation of County Boards of Agriculture and some of the South Jersey farmers' organizations. The Pennsylvania group was made up of those representing the Inter-State Milk Producers' Association, the Pennsylvania State Grange, the Farm Bureau and other organizations with membership located along the Delaware River border line. By bringing this matter to the attention of Governor Pinchot, both groups hope to work out a plan which will cause less trouble to the farmers hauling farm products from their State to the markets of the other State.

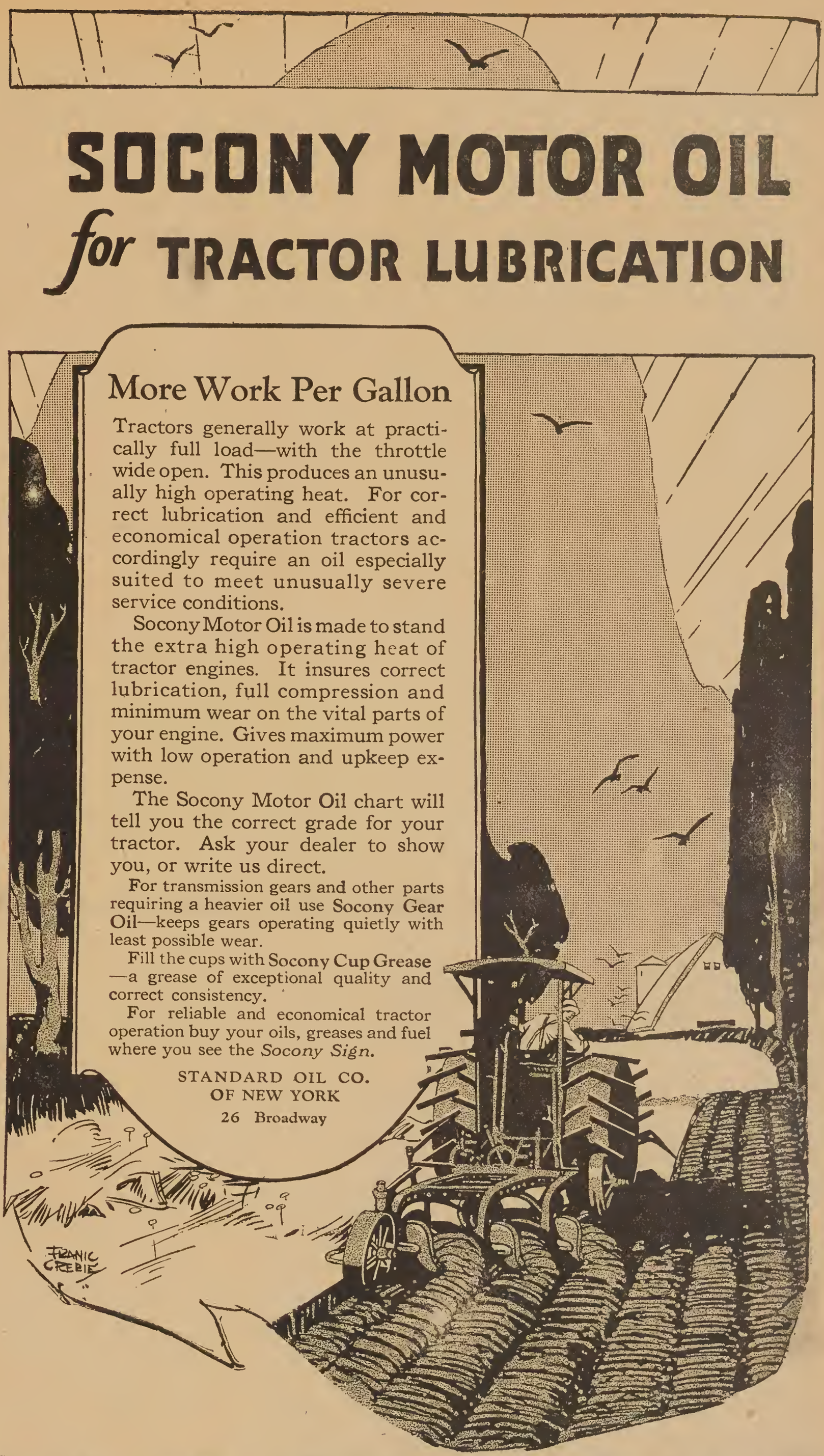
It was called to the Governor's attention that Pennsylvania might so change its license regulations that the 15 days now allowed under the law could be taken consecutively if desired. Also, the representatives asked for a liberal enforcement of the laws of both states such as now exists between New York and New Jersey, which permits the farmers to deliver commodities in the markets of the adjacent state even though it is necessary for them to make a larger number of trips than technically permitted under the law.

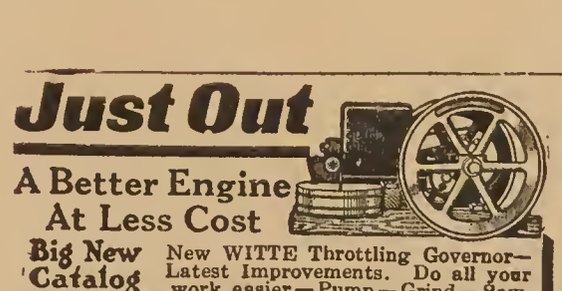
The other alternate which has been discussed by representatives of both New Jersey and Pennsylvania is for a free zone along the border line, which might include such territory as greater Philadelphia, some of the smaller towns north along the Delaware and Easton, while in New Jersey it would include Phillipsburg, Trenton, Camden and a few other intermediate points. This whole matter of reciprocity has awakened considerable agitation in both states, and its ultimate adjustment will relieve the farmers of considerable hardship which they now have in the way of meeting motor-truck license requirements.

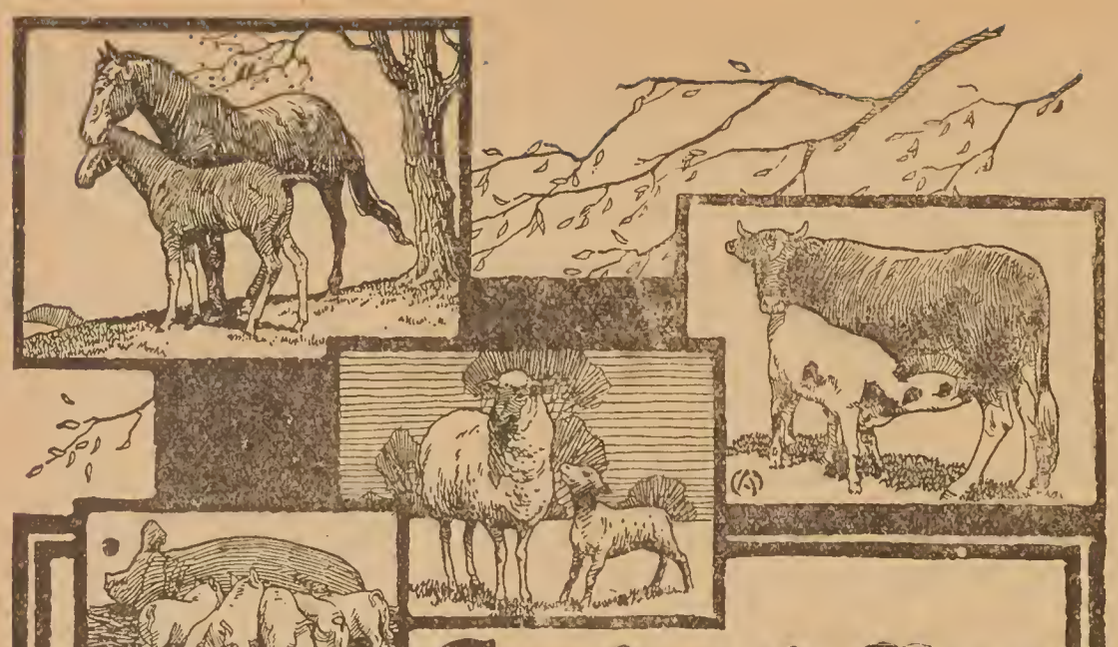
Gardeners Fighting for Better Markets

Another type of reciprocity is being sought by the market gardeners in Northeastern New Jersey, who sell their products practically the year round in New York City markets. The New Jersey members of the New York Market Gardeners' Association have called upon the New Jersey State Bureau of Markets to work with the State and city marketing officials in New York so that they may have better facilities for marketing their products in the metropolitan area. The antiquated methods and equipment of the farmers' markets in New York City, which have been continually exposed in the last two years, are not in accord with those of progressive farmers' markets in such cities as Rochester, Detroit and Cleveland. The New Jersey gardeners are putting their shoulders to the wheel with the market gardeners of Long Island and Staten Island in the formulating of a constructive program which will ultimately bring about a system of better farmers' markets.

We think more of the good old American Agriculturist than any other farm paper, and we like the good clean stories you print in it. With best wishes to you and your paper for the coming year, we remain.—Earle V. Grace, Lockwood, N. Y.







Spring is Here

All out-of-doors is filled with the bleat of the lamb, the bawl of the calf, the grunt of the pig, and the whinny of the colt.

Youth asserting itself everywhere!

Keep their bodies healthy, and stomachs full.

You can then count on good growth—quick development—and begin to cash in on them before the summer-end.

Let

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against disease, insurance of good appetite, good digestion. It keeps the worms away.

Then, there are the mothers:

Your COWS need it for its system-toning, bowel-cleansing, appetizing effects. Puts them in fine condition for calving.

Your BROOD SOWS will be relieved of constipation and put in fine fettle for farrowing.

Excellent for MARES in foal—and EWES at lambing time.

It makes for good appetite, and more milk to nourish the offspring.

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I spent 30 years in perfecting this Tonic.
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Dr. Hess Dip and Disinfectant
For Sheep Ticks - for Hog Lice - for Health

Controlling Roup

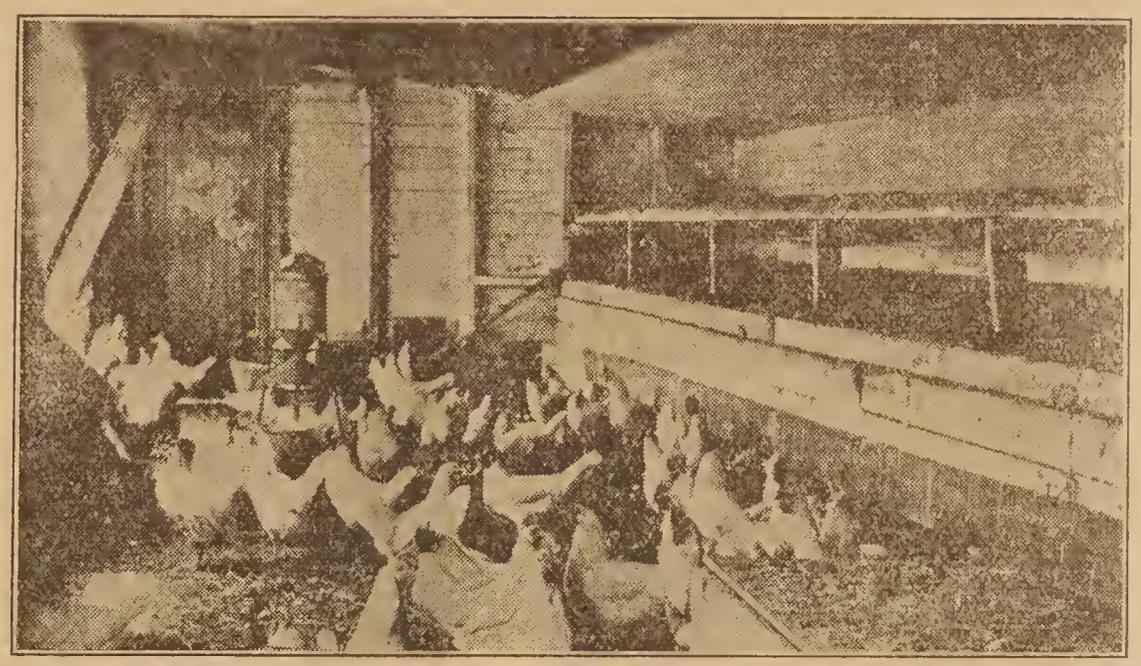
One of the Most Common Poultry Diseases

By W. G. KRUM

ROUP causes a greater mortality among fowls in many sections than does any other disease, hence poultrymen need to be on guard to prevent it if possible and to lessen its ravages when it breaks out in a flock.

Roup is a germ-disease; the germs apparently being present over a large part of the country awaiting favorable conditions to attack a flock. This disease is often introduced into a flock by the addition of birds from farms where infection exists. It is also thought that the germ may be carried in shipping coops returning from market.

Birds of low vitality are very susceptible to this disease; in fact, are the first usually attacked by it. They should never be allowed to remain in the flock, as they soon spread the disease to the birds that have had their power of resistence lowered by bad surroundings and poor management. Hens may have colds and catarrh without roup, yet these usually precede this disease. Birds that are overfed and underexercised or kept in dark, damp, poorly ventilated houses and exposed to dampness, drafts, or sudden changes of weather, are liable to contract colds and catarrh, and therefore become more susceptible to roup.



Exercise, feed, ventilation and constitutional vigor all have a bearing on the health of the birds. A cool house is less dangerous than damp quarters

The feeding of moist mash instead of dry during the winter tends to decrease the incentive to exercise which is so essential to the maintaining of good health. Mouldy or damaged feed also tends to lower the fowl's vitality.

Three Forms of Roup

There are three forms of roup—that of the nasal passages, the eye and the throat. Nasal roup is shown by a watery discharge from the nose; this has a characteristic odor unlike that of any ordinary catarrhal cold. This discharge becomes thicker until the passage is plugged with yellow, cheesy pus. When the eye is affected, the same symptoms are shown as with the nasal roup. The third form attacks the throat and mouth, first showing dark spots that later form into white diphtheric cankers. In many cases these cankers form in the larnyx and cause strangulation. The first symptoms of roup are a loss of appetite and a falling off of egg production. The birds stand around in a listless manner, have difficulty in breathing, have an offensive nasal discharge and a soiling of the feathers under the wings from this discharge. They frequently shake their heads and sneeze. These symptoms are often accompanied by diarrhœa.

All affected birds should be removed from the flock as soon as they are discovered and taken to a dry, sunny building and given individual treatment, while the balance of the flock should be given plenty of green food and also one pound of epsom salts dissolved in six or eight quarts of water for each hundred hens, no other water being available until this is used up. The poultry houses should be cleaned up and disinfected. Do not wet the pen in cold weather, but use a strong disinfectant applied with a fine spray pump; also disinfect all feed and drinking dishes, put in new dry litter and give plenty of fresh air without a direct draft upon the hens, especially at night. Give good feed and keep the hens busy.

Treating Affected Birds

The affected hens require individual treatment; the worst cases should be killed and burned, while the others may be treated as follows: Wash out the eyes twice daily with a two per cent solution of lukewarm boric acid or creatin, using cotton or a soft cloth; spray the throat and nostrils with the same, or a two per cent solution of tincture of iodine. An ordinary nasal atomizer is very good for applying this spray. When removing cankers from the mouth, paint the wound with clear iodine. A match or toothpick is usually used for applying it. Give each bird one teaspoon of castor oil daily and five grains of quinine three times a day for several days; give moist feed and plenty of clean water.

Roup is one of those diseases that may be prevented in nearly all cases. First, by keeping only strong, vigorous, well-bred stock. Profit is not always measured by the number of hens one keeps, but by the number of good ones. Keep no low-vitality birds for disease-spreaders. Fowls should be kept in houses that are comfortable, that is, clean, dry and sanitary.

The litter should be changed often, and the house, especially at night, kept well ventilated, as hens require more fresh air than cows or horses. A thousand-pound cow requires 2,804 cubic feet of air every 24 hours; a thousand-pound horse, 3,401, and a thousand pounds of fowls, 8,278 cubic feet. Hens must also be kept busy to maintain a normal temperature of 106.7 degrees Farenheit. They should be fed their grain in a deep, dry litter; dry mash maintains better health than does moist mash, as the hens eat a little and eat often, while with moist mash they eat hurriedly and then loaf around.

When purchasing new stock, isolate them for a week or two before placing them with the flock, as they may carry the disease in a mild form. Disinfect all shipping crates as soon as they return from market; also disinfect the houses every time the litter is cleaned out. Give one pound of epsom salts once a month during the winter to each hundred hens, and until they are let out on a green range. Watch the birds closely and study their appetites; when they go off their feed, study and remove the cause before colds and roup cut into the flock and cut out the profits.

Artificial Lights—The poultryman who uses artificial lighting in his hen houses, does well to draw lessons from the past experiences of others, which show that the best results are obtained from an egg production not exceeding fifty per cent. This should be accompanied with a minimum amount of light.

Sciences Discovery Routs Chicken Lice

Mineralized Water Gets Rid of Dusting or Spraying—Birds Delouse Themselves. Fine for Baby Chicks and All Poultry.

A recent discovery promises to revolutionize all the commonly accepted methods for keeping poultry free from lice and mites. This wonderful product keeps the poultry always lice-free without the poultry raiser doing any work. It is the simplest, easiest, surest and best method ever discovered.

Hick's Lice-Go, which is the name of this remarkable lice remedy, is dropped in the chicken's drinking water. Taken into the system of the bird, it comes out through the oil glands of the skin and every louse or mite leaves the body. It is guaranteed to help the hatchability of the eggs and cannot injure the flavor of the eggs or meat; is harmless to chicks and does not affect the plumage. A few days' treatment at the start and then a little added to the drinking water each month is all that is necessary.

Send No Money—just your name and address to Chas. M. Hick & Company, Dept. 442, 1018 So. Wabash Ave., Chicago, Ill. A card will do. Mr. Hick is so confident that Hick's Lice-Go will get rid of every louse or mite that he will send you two large double strength $1.00 packages for the price of one. When they arrive, pay postman only $1.00 and postage. Sell one to your neighbor and get yours free. If you are not absolutely satisfied after 30 days' trial, your money will be refunded. This offer is guaranteed by two big Chicago banks, who say that Mr. Hick will do exactly as he agrees without question or argument. Write today before this remarkable trial offer is withdrawn.

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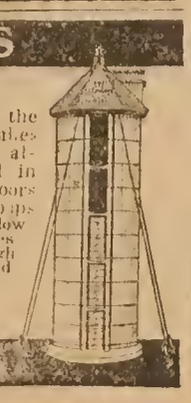

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May chicks 1c. June, July and August 2c lower.

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From 200-Egg Hens

Chicks from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

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1923 Chicks Wh., Br., and Buff Leghorns. 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.

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KERLIN'S GRAND VIEW POULTRY FARM, Box 41, Center Hall, Pa.

CHICKS From good selected heavy-laying flocks of Rocks, Reds, Wyandottes, Anconas, Leghorns, Minorcas. Right prices. Postpaid. Full live delivery guaranteed. Bank references. Catalog free. RELIABLE HATCHERY, Box 4, McALLISTERVILLE, PA.

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Continental Baby Chicks All kinds sent prepaid. Satisfaction. Orders booked now. Address, AGENT, Box 27, GARRISON, N. Y.

New York Holstein Sale To Be Held at Earlville

EARLVILLE will be the scene of the annual spring Holstein sale, staged by the New York Holstein-Friesian Association. The date is May 8-9.

It is expected that about 150 pure bred Holsteins will be sold. All entries will be passed on by the county officers of Holstein clubs before they are accepted by the State association. Animals must be good individuals and sound and right in every way.

NEW CHAMPION OF HOLSTEINS IN NEW YORK

It has been announced by the Advanced Registry Office of the Holstein-Friesian Association of America, that Winana Segis May 2nd is the new champion in New York State in the senior four-year class of the ten months division. She is owned by Henry Morgenthau Jr., of Hopewell Junction, N. Y., owner and publisher of the American Agriculturist.

During her test, Winana Segis May 2nd produced 19,945 pounds of milk and 876.74 pounds of butter. The remarkable part of the record lies in the fact, that during the last two months she was only on two milkings per day. Had she been on her normal schedule of four milkings per day, there is no question but what she would have gone into the 1,000-pound class.

As I View Long Island

(*Continued from page* 311)

in the rest of the State. Brussels sprouts, for example, seem to stand unprotected in the fields and to be picked throughout the winter as needed.

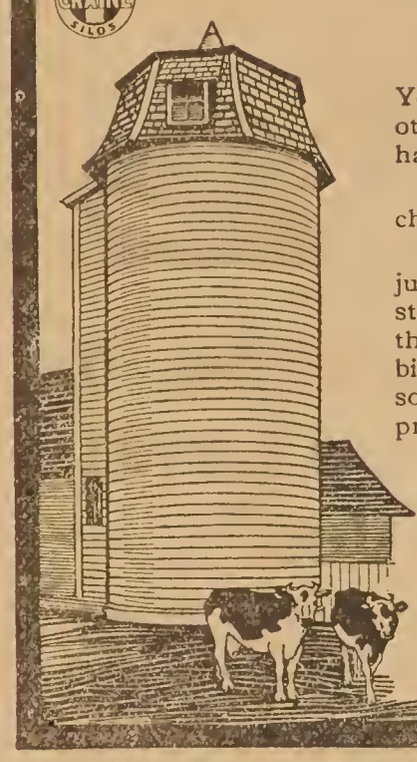
Now, I am going to say a very frank and friendly word about Long Island agriculture. I say it with hesitation because I hope I have some very good friends there, and some day I want to go back again. I admire the island and its farm people so sincerely that I feel sure they will pardon me for remarking that there is very, very little land that is really fertile, as judged by the standard of the better up-State soils. Understand me, there is plenty of splendid, intensive farming — we can all learn from them in this respect. So, too, land values are high, and, on the whole, the farmers prosper. Perhaps there is no part of our State, unless it be in the wonderful Ontario Shore country, where there is as high an average standard of rural civilization as in some communities I could name. They are blessed with a kindly climate and with a light and friable sandy loam soil that it is a delight to stir with a cultivator or hoe. Moreover, their markets are very accessible, and in the old days they had cheap and abundant supplies of city stable manure—something less important now than formerly. I am an enthusiast on the subject of stable manure, but if I were dependent upon this stuff, made in the city, sold by the ton after it has been watered with the hose until the cars drip as they roll, I would surely take to chemicals and cover crops. I think that more and more the island is coming to this conclusion.

Plant Food is Purchased

Now, will anybody be very angry if I say that natural fertility is not abundant, and that the climate is unfavorable to their utmost important crop —potatoes. The fact that they use at least a ton of high-grade fertilizer per acre bears witness to the truth of the first assertion, and the fact that the potato fails to maintain its vigor of constitution when grown under island conditions, testifies to the correctness of the second observation, and having gotten this off my chest, I feel better. In other words, the Long Island grower succeeds splendidily in spite of and not because of his surroundings. Given the natural advantages of, say Franklin County, along with the islander's exact methods and skill, and potatoes would be knee-deep all over the field after he dug 'em. But Long Island potatoes are of good quality, and because they are smooth and uniform and carefully graded and clean, they do top the New York market.

Keep ewes in thrifty condition.

CRAINE TRIPLE WALL SILOS



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You can easily tell a Craine 3-Wall Silo from any other. It is the only manufactured wood silo that has neither hoops nor lugs to hold it together.

It gives its owner lasting satisfaction. It is the cheapest silo to own. It stays put without tinkering.

Craine Silos are constructed to keep warmth and juices in; to keep cold and weather out. A strong stave silo inside is covered with thick Silafelt, and the patented, Crainelox Spiral Covering outside binds the entire structure. This forms a handsome building with every square inch of surface protected in every direction.

Any old stave, iron-hooped silo can be rebuilt into a permanent Craine 3-Wall Silo at about half the cost of a new one.

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Killed 200 Rats At One Baiting

Dog, Ferret and Traps Failed. Amazing Virus Quickly Killed Them All. Not a Poison.

"I was over-run with rats," writes H. O. Stenfert of Redford, Mich. "Seemed to be several hundred of them. Dog, Ferret and Traps failed. Was discouraged. Tried Imperial Virus and was rid of them all in a short time. Have found rat skeletons, large and small, all over the farm.

"The year previous Rats killed 200 out of 300 baby chicks. Last year saved them all. Will send for 10 bottles for neighbors, and we will clean up the whole neighborhood."

Rats, Mice, Gophers, in fact all Rodents, greedily eat Imperial Virus on bait. Sets up burning fever. Pests die outside hunting air and water. Harmless to humans, poultry, pet stock, etc. Economical to use. Indorsed by Farm Bureau Experts and large, nationally known institutions everywhere.

You Can Get Yours Free.

SEND NO MONEY. Write today to Imperial Laboratories, Dept. 2000 Kansas City, Mo., and they will mail you two regular $1.00 bottles of Imperial Virus (double strength). Pay postman only $1.00 and few cents postage on arrival. Use one yourself and sell the other to a neighbor, thus getting yours free.

This special Introductory Offer also applies to the regular $2.00 size, containing three times the quantity. This size is economical for killing large herds of rats, or in badly infested warehouses, scattered out-buildings, poultry houses, etc., or fields of Gophers. Simply specify that you be sent two of the regular $2.00 sizes for the price of one. Readers risk no money, as Imperial Laboratories are fully responsible and will refund the cost on request any time within 30 days.

"As a mortgage lifter the hog has nothing on a De Laval Cream Separator"

"My work as field man for the Wisconsin State Dairymen's Association," says Herman Marx, in a recent letter, "brings me into contact with a great many farmers and a great many separators. Of all the farmers who own separators, I find about 80% of them own a De Laval.

"For close skimming, low upkeep, easy running and long life it is hard to beat a De Laval. I have adjusted a good many separators and I find that the easiest one to adjust is a De Laval.

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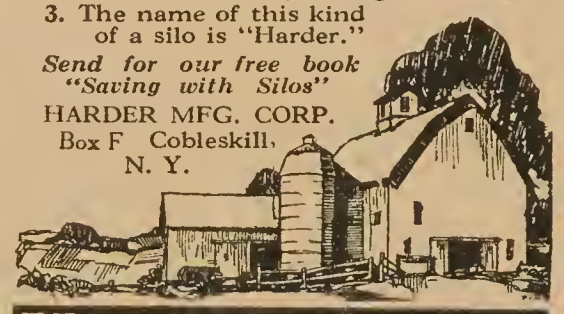

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Are Box Stalls Essential?

A Practical Suggestion for the Man Who Sells Cows

By H. E. BABCOCK

IT is not uncommon to see advertisements of animals with A. R. records bearing the notice that the record was made in stanchions, the implication being that had the cows enjoyed the luxury of box-stalls, the records would have been higher.

This universal belief so impressed us that when we started A. R. testing our pure-bred Guernseys this fall, we tried to plan it out so as to give our best cows box-stalls. However, Inlet Valley Farms are operated for profit, not for fun, and as the fall and winter calf crop came on we soon faced a shortage of stalls. We had either to build a calf barn or take our test cows out of box-stalls.

When the day came that a move had to be made we all felt somewhat depressed because the cows had been running along very nicely in the stalls, and it seemed a shame to run the risk of lowering their production by shifting them back to the stanchion rows. Lady Rilma at that time had been on for five months. She was just at the point, therefore, when she would be particularly susceptible to changes. However, the change was made, and this is what the figures show:

BOX-STALL PRODUCTION

February	1.... 59.0	pounds
	2.... 58.6	"
	3.... 59.3	"
	26.... 58.7	"
	27.... 55.3	"
	28.... 57.9	"

STANCHION PRODUCTION

March	2..... 58.2	pounds
	3..... 57.8	"
	4..... 57.6	"
	22..... 58.3	"
	23..... 60.0	"
	24..... 60.3	"

It will be noted that contrary to expectations, three weeks after she was shifted from the box-stall to the stanchion and six months after being fresh, she was giving more milk than when in the box-stall.

More Contented in the Stanchions

Those of us who have watched her believe that she seems more contented and happy, and feeds better standing in the row with the other cows than when she was alone in the box-stall.

This observation is also borne out in the case of another cow which is still in a box-stall, but which to my certain knowledge stands in exactly the same spot in the stall day after day, not moving as much as she would were she in a swing stanchion.

Of course, there is no comparison between the amount of labor required to take care of a cow in a stanchion and in a box-stall. In our experience, at least with cows which have been raised and developed under practical farm conditions, box-stalls for advanced registry work are not essential. In fact, it is doubtful if one can afford to use them.

I realize that this might not be true in the case of those herds which have been pampered and where young animals have been accustomed to individual box-stall conditions instead of herd care.

A LESSON FOR DAIRYMEN FROM HORSE DEALERS

I remember one time when I was in Buffalo on a visit to the stockyards I came upon one of the big horse sales stables which are run in connection with the stockyards, and here I saw dozens of horses, some of them quite inferior specimens, being fed and groomed for the farmer trade in New York State.

Recently I have been trying to pick up quite a number of dairy cows. I have found plenty of cows for sale, but I have found very few animals which it would pay a man with high-priced land and high-priced labor to buy. Most of the cows I have seen have been altogether too thin to be good buys.

The comparison between what I saw in Buffalo and what I have seen in the barns of the farmers who have cows to sell leads me to wonder why more men do not make a specialty of raising good grade cattle to sell. It would seem that here is an opportunity for the farmer who lives back on the hills, or a good distance from a milk station. Most farmers so located turn off several animals a year, and the sale of this surplus dairy stock constitutes a good share of their farm income. It would seem that since they have the system already established it would pay them to study a little more closely market requirements and to have their animals in condition to meet them.

Most men who go out to buy cows these days, unless they are doing it for purely speculative purposes, want animals that show unmistakable evidences of freshening soon; they want cows of good size, and they want cows with good, square udders and fair-sized, well-placed teats.

In addition, if they are buying animals for immediate dairy purposes, they must have condition. A thin cow cannot milk well, no matter how good her intentions may be. Farmers, it would seem to me from what practical experience I have had, who desire to sell off cows as a regular crop, should do what the horse dealers do, and what I am told the Middle West farmers who raise horses for sale do. They should grow up large animals; they should use bulls which will give them the type that the market requires, and, above all things, they should have their animals in condition.

DAIRY SUBSTITUTES ON THE WANE

H. H. LYON

Long have many of us desired to see substitutes that masquerade under false colors put in the discard. There are many of them but my interest just now is in the substitutes for our dairy products. Prominent among these are of course oleo and filled milk. Our dairy organizations have done much to challenge the right of way for both of these and public sentiment has undergone a great change in respect to their use. Oleo is now omitted from the shelves of a considerable number of grocers in country towns. In some cases an entire village has gone on record as having none of it. In most of these cases it has been done by the local farmers who brought some pressure to bear on the dealers. Frequently a dealer has been glad of an excuse not to handle the substitute. There are those who contend that oleo will be entirely banished, but I do not expect to see that day. Certainly it is no longer quite so popular to sell or to use butter substitutes in most of our moderate sized towns and public sentiment is a most powerful factor.

As for filled milk, it seems to be going the same way. Laws have been passed against it and a great many more such laws are sure to be enacted. We have what seems to be authentic statements that several manufacturers have decided that sentiment is such that they cannot afford to longer continue in the business and that they will turn to the legitimate product. I realize that it is sometimes one thing to get such a statement from a manufacturer when he is being prosecuted for some violation of the law and another to secure his loyalty to his promise. However there are certain cases where this talk seems to be sincere. I look for public sentiment to drive many of the imitations out of the markets. We need not think that such sentiment will take care of the job entirely, for it will not. We must keep continually at the business, go after legislation to control oleo and other substitutes and place them where they will do the least harm.

Treating Animal Lice—If the weather is too cold to spray horses or cattle for lice they can be treated by dusting with a powder made up of one part of sodium floride and five parts of wheat middlings or other inert powder. Care should be taken not to get the powder into the eyes or on mucous membranes and not to get too much on any one animal, one pound being sufficient for five animals.

The Motherless Lamb

ROBERT H. NEILL

ONE of the many problems that confronts the sheep-raiser each spring is the solution of the motherless lamb. There are a good many ways of prevailing on the ewe to own her lamb, but none of them are specifics. Often the breeder has to resort to all sorts of devices before he succeeds. At the best success is only attained by the most patient, persistent effort.

The first step is to confine the ewe with her lamb, away from the sight and hearing of the rest of the flock, if possible, and then, several times a day, compel her to stand and let the lamb suck. At first, if the lamb is weak and helpless, she may have to be held, but as the lamb grows stronger and more able to help herself, she can usually be cornered and made to stand. A sharp switch may be found useful, by cutting her sharply across the nose when she fights her lamb or refuses to stand. She will soon learn that the only way to escape punishment is to stand quiet while the lamb takes its nourishment.

When the ewe learns to stand with the boss at hand the battle is nearly won, and in a few days she gives up and can be turned with the rest of the flock; but it is best to watch her for a few days, as she may desert the lamb when turned with the flock. She may need a second term of imprisonment to work an absolute reform.

A lamb can be easily raised by hand, but it costs more in milk than it is worth, to say nothing of the work, and, besides, a hand-fed lamb is a nuisance.

If a ewe loses her lamb she can usually be made to adopt a disowned twin, as by proceeding as in the case of the disowned lamb. If a ewe has plenty of milk she can almost always be made to own her lamb or adopt another, but if she has no milk the case is about hopeless. Sometimes, by nursing the lamb along on a bottle a few days, the ewe will come to her milk all right and be able to take care of her lamb.

TREATMENT FOR STOMACH WORMS

I have a five-year old ram. Is he too old to use for breeding during the coming season? I do not wish to part with him if he is of any use. I also have one ewe that is rather poor in flesh, although she seems perfectly well otherwise. Is this due to an attack of stomach worms? If it is, what remedies would you suggest? It is not due to the ration she is getting, for she gets grain 10 months of the year.—D. D. F., New York.

The age of your ram should not impair him for breeding purposes. If he is in good condition, has had plenty of exercise and receives a good grain ration, there is no reason why he should not be sure. The grain ration should consist of equal parts whole corn, oats and wheat bran.

Regarding the ewe that is thin, it may be well to examine her mouth for a bad tooth which may be preventing her from eating well. However, as you say, it may be that she has stomach worms. Tobacco dust mixed with salt and kept before the flock all of the time acts as a good preventive. It would be well for you to drench this ewe, using the method suggested in Farmers' Bulletin 1150, issued by the U. S. Department of Agriculture. The method is briefly as follows:

"Dissolve one-half pound of the powdered crystals of copper sulphate in one pound of boiling water, using a porcelain or enamel-ware dish, as bluestone will corrode most metals. Add enough cold water to make three gallons, using wooden, earthenware, or other non-metallic receptacles. This will make an approximately 1 per cent solution, and will be sufficient to dust 100 adult sheep, allowing for about a 10 per cent waste." The foregoing will give you the proportions. Now, you will only want to make a fraction of this quantity. For sheep past one year of age, use 3½ ounces of the 1 per cent solution.

In drenching the ewe, it is well to use a narrow-necked bottle. It is customary to starve the ewe over night. While drenching, the sheep should remain on all four legs, with head horizontal. This is very important, for if the head is held above the horizontal (nose higher than the eyes) there is danger of some of the fluid passing into the lungs and strangling the sheep.

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HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, North Branch, N. Y.

CATTLE

WANTED — 16 cows, big producers. TB tested, fresh or soon, on easy terms. Address, W. A. M., care AMERICAN AGRICULTURIST 461 4th Ave., New York City.

FOR SALE—Registered Guernsey cows, heifers and a bull one month old. RAY D. LEVAN Catawissa, R. 4, Col. Co., Pa.

CATTLE BREEDERS

FOR SALE—Bull Calf descendant of the great Cornell Cow Glista Ernestine with 7 records of over 30 lbs. See records in my ad in Live Stock columns this issue. BRADLEY FULLER, Utica, N. Y.

RAW FURS AND TRAPPERY

LET US TAN YOUR HIDE—Cow and Horse hides for fur coats and robes. Cow and Steer hides into Harness and Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

MUSKRAT FURS WANTED FOR COATS. High prices paid. EVERETTE SHERMAN, Whitman, Mass.

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

MALE HELP WANTED

RELIABLE MAN WANTED: to take orders for fruit and ornamental trees, shrubs, roses and seeds. Opportunity to become district superintendent. Pay weekly. Equipment free. FRUIT GROWERS' NURSERIES, Drawer G, Newark, New York State.

WANTED—Single man for poultry, dairy, fruit farm. $40 per month and board. LOCUST GROVE FARM, Tivoli, N. Y.

FEMALE HELP WANTED

WANTED—Good, neat woman to keep house for two brothers. One-half mile from village. JOHN R. ARNOLD, Angelica, N. Y.

SEEDS AND NURSERY STOCKS

SEED OATS—Cornelian and Empire Varieties. Recommended by New York State College of Agriculture. Write for prices. J. CORYELL, Ithaca, N. Y.

PROGRESSIVE AND FRANCIS EVERBEARING STRAWBERRY PLANTS, $1.60 per 100; $10 per 1000. BASIL PERRY, R. R. 20. Georgetown, Delaware.

FREE SEEDS—Hollyhock, dahlia, double poppy, with four dahlias, cactus, decorative or show, 50c. OLIVANNE DAHLIA GARDENS, New Bedford, Pa.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

SEED POTATOES AND SHADELAND CLIMAX OATS, White Grant and Russet Best to yield or cook. M. L. GLASGOW, Glasgow, Pa.

40 LARGE, mixed gladiolus, or 20 purple and light-pink Dahlia bulbs $1 postpaid. HOWARD GILLETT, Stanley, N. Y.

DAHLIAS—Assorted tubers $1 dozen; choice named varieties, $2.50 dozen, prepaid. H. BENEDICT, Meadowbrook, N. Y.

DAHLIAS—Dark red, 75c per dozen, pink and mixed colors not labeled $1 per dozen. S. S. SHIELDS, New Bedford, Pa.

HOWARD 17 EVERBEARING and others. PAINE, So. Royalton, Vt.

DOGS AND PET STOCK

PEDIGREED COLLIE PUPS. All white, sable and whites. Many champions in four generations. CAMPBELL, 2 Orchard Ave., Auburn, N. Y.

FOR SALE—male shepherd 3 years old, cattle driver, good on coon skunk at night. Must sell $25. WM. FOUST, New Milford, O.

COLLIES ALL AGES. Have advertised with Homestead over thirty years. PAINE'S KENNELS, So. Royalton, Vt.

FOX TERRIERS OF PURE BREEDING. Puppies at $10 each. BARNETT'S KENNELS, Waynetown, Ind.

PURE BRED BELGIAN HARES from three to seven months old. SIMMONS V. KARPP, Rabbitry, Castorland, N. Y.

SWINE

REGISTERED BERKSHIRE. Large bone type. Bred sows, service boars and young pigs. Order now for spring deliveries. Prices reasonable. FRED SCHULDT, Lyons, N. Y.

REGISTERED POLAND-CHINAS, BERKSHIRES, Chester Whites, all ages, mated, not akin. Bred sows, service boars; collies, beagles. P. HAMILTON, Cochranville, Pa.

REAL ESTATE

FOR SALE—70-acre dairy farm at Amenia, N. Y., under cultivation, woodland, fine buildings, house heated, silo, icehouse filled; 60 fruit trees; 2½ miles to station, milk factory. Price $4,000, $2,500 cash. Box 301, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York, N. Y.

175-ACRE DAIRY AND FRUIT FARM: Alfalfa, apples, peaches, pears, cherries, etc. Plenty of timber, excellent spring water, high altitude, view unsurpassed; 2 houses, barns, etc.; fifty miles from New York City; price, $15,000. Box 132, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

REAL ESTATE

FOR SALE—Farm-boarding house. Fit for a private residence. 42 acres, 400 fruit trees; 120 grape vines, all kinds berries; gardens. Modern house; 12 rooms fully furnished. Electric light, water, steam heat, bath, billiard table, large verandas, garage. Bungalow eleven rooms, three furnished. Bungalow, two rooms furnished. Easily accomodate 40 boarders. Large barn, house for 200 pigs, rabbit house, ice house, etc. Farming tools and agricultural implements. Price $10,500; $6,000 cash; $4,500 mortgage. P. PHILIPPOFF, Proprietor. Leeds, Greene Co., N. Y.

FOR SALE—110 acres; good buildings; orchard neverfailing water, gas fuel, two-thirds improved, one-third good timber, terms reasonable. M. J. McKISSICK, Fertig, Venango Co., Pa.

FOR SALE—Small State Road farm, fine location; near high school, church and stores. Box 302, AMERICAN AGRICULTURIST, 461 Fourth Avenue, New York, N. Y.

FARM 90 ACRES, finely located, nearly level, on State Road. Possession at once, Box G. E. S., AMERICAN AGRICULTURIST, 461 4th Ave., N. Y. C.

FLORIDA LAND FOR SALE OR EXCHANGE. What have you? For particulars, address C. W. RITTENHOUSE, R. 5, Ithaca, N. Y.

FARM FOR SALE—128 acres, adapted to grain, fruit and dairy. SEVI H. ELLIS, near Cox's Corner, Marlton, P. O. Bur. Co., N. J.

FARM FOR SALE—26 acres, good water and fruit, 4 miles to town. MRS. GEO. BUTLER, R. 1, Bainbridge, N. Y.

MISCELLANEOUS

PRINTING—Letterheads, billheads, envelopes, circulars. Write requirements. Samples free. FRANKLIN PRESS, B-28, Milford, New Hampshire.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

FOR SALE—6 H. P. gasoline engine, fine condition; well built, long bearings, upright. $50 FRED UNSER, JR., Mineola, L. I.

SERIAL STORIES FOR SALE. 12 cents buys complete story. List sent on request. EDMUND GUSTAFSON, Pawling N. Y.

FOR SALE, International Harvester Company tractor 12-25 H. P. in first-class condition. D. E. PAGE, Perry, N. Y.

150 NOTEHEADS, 100 white envelopes printed and mailed $1. Samples printing free. SUNCO, Mohawk, N. Y.

FOR SALE—Maple Syrup, $1.90 in gallon cans. Special prices on Bbl. lots. GEO. BUSH, R. 2, Box 26. Croghau, N. Y.

GUMMED MAPLE SYRUP LABELS: 35 cents 100; $1.50—500; $2.85—1,000. GORDON B. SMITH, North Creek N. Y.

STRAWBERRY TICKETS. I print them. Write for samples. VENABLE, the printer, Upper Fairmount, Md.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

PURE MAPLE SYRUP in one gallon cans. Write for prices. IVAN HARVEY, Cincinnatus, N. Y.

MILK TICKETS a specialty. Samples free. BONDS PRESS, Middletown, N. Y.

UNLEACHED—Ashes. GEORGE STEVENS, Peterborough, Ontario.

"I saw your ad in the American Agriculturist"

Not many words or much trouble to write. But sometimes a few words do big things.

And if you include those few words when ordering from our advertisers we guarantee to refund the purchase price of any article that is found not to be as advertised, if the advertiser fails to make good.

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shennandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437
Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

Choosing and Buying a Farm

(*Continued from page* 307)

farm. Moreover, there will be considerable loss of time from productive work when the building repair work is being carried on. A farm which has well-arranged buildings in a good state of repair may be ready for business at once. It is generally a much cheaper proposition than a farm with poor buildings, and it needs no loss of the owner's time before being ready for business.

Select a Productive Farm

In choosing a farm, one should give considerable attention to the natural fertility of the soil and to the present state of fertility. As in the case of farm buildings, it is generally much cheaper to purchase a farm which is in a high state of productivity than to purchase a worn-out farm and attempt to build it up. Occasionally a run-down farm may be purchased so cheap that it will pay to improve it, but generally

Buy a farm when the crops are growing

it is more economical to purchase the farm which is in good condition.

The fertility of the soil will be indicated to a considerable extent by the character of the crops which are growing and the crop yields for the present year. A good time to view a farm is in June or July, just before the hay is cut. Most Eastern farms have half or more of their crop area in hay each year. Hay is one of the best indications of the fertility of the soil.

A soil which contains considerable limestone is generally a much more productive soil than one which is deficient in lime. The presence of limestone may be indicated by particles of limestone in the soil, by the growth of clover or alfalfa, or by a number of laboratory tests which can be made by the County Agent, or by the nearest Agricultural College or Experiment Station.

The character of the soil should be considered in selecting a farm. A heavy clay or sandy soil is harder to work and is not well adapted for potatoes and does not produce the best crops of cabbage, corn or vegetables. A heavy soil cannot be worked when it is too wet or too dry. It is not adapted to a wide range of crops. On the other hand, a heavy soil ordinarily contains a considerable amount of fertility, and is very retentive of moisture and of fertility.

A loamy soil is adapted for the production of a wide range of crops, although it will not ordinarily produce quite as good hay or grain as heavier soils. It is easier to work, can be worked when it is somewhat wet, or when it is rather dry. It is not as retentive of moisture or fertility as the heavier soils.

Sandy and gravelly soils may be very dry or subject to drouth. They may be leachy or subject to a quick loss of soil fertility. They are easy to work, warm up quickly in the spring, produce early crops and are specially well adapted for some crops such as vegetables.

The condition of the roads must be considered under the factor of distance to market. A farmer who is six miles from market on a good macadam road may find it easier to market its products than one which is three miles distant on a bad dirt road. If there is a very bad hill between the farm and market, it may mean expensive labor in hauling feed or fertilizer to the farm, or in hauling farm products to the railroad.

A farm which is located near good neighbors is worth more than an isolated farm. It is worth something to the farm business to have rural free delivery and telephone service. Location near a trolley line is valuable. Well-built and well-organized churches, schools, granges, and other social institutions make a farm worth more. If the farm is too far from high school, then children must be sent away and board with a strange family in order to complete their high school education.

With the development of trunk lines, of State roads, and the rapid increase in number of automobiles, there is a considerable market value in the location of a farm on the State road. Many such farms are now selling considerable quantities of fruit, vegetables, and other products to the passing public.

There are many other items to consider in purchasing a farm. A healthful location is an economic factor which must be considered. The tax rate of the township or school district should be considered, especially since the very great rise in taxes during the past few years.

The Farm Water Supply and Other Factors

The water supply is very important. In fact, this may be an absolute limiting factor in the value of a farm. A dairy farm which must depend upon wells is at a considerable disadvantage over one that has running water in the barns from a spring which is higher than the buildings. A gravity water system can be maintained at very little expense. Any other water system is maintained at considerable annual expense and with constant risk of trouble.

Orchards and vineyards may add considerable to the value of the farm.

The value of the farm as a home is one of the most important items to consider.

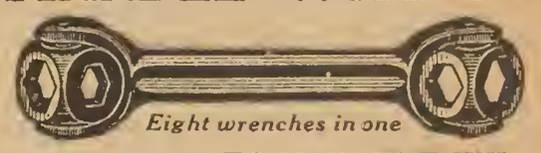
The probability of an increase in the value of the farm should be given considerable weight.

In choosing between two farms, it is well to work out for each the number of acres of crop land, pasture land, waste land, and to put a separate value on these. Often we find that what appears to be the most expensive farm, is really much the cheaper farm because it has so much more crop land and so much more better improvements.

Do Not Be Too Hasty

Do not be in too great a hurry to purchase a farm. There are nearly 200,000 farms in New York State. Many of these are for sale each year. There are thousands of farms in the State that are for sale each year at a very reasonable price. It is a common occurrence to have a real estate agent rush one into the purchase of a farm with the argument that this farm may be lost if not snapped up at once. Ordinarily, farms do not sell immediately after coming on the market. They generally move rather slowly. The prospective buyer should take plenty of time to satisfy himself that he wants this farm before purchasing. Meanwhile, if someone else purchases it ahead of you, remember that there are a large number of farms for sale and you can probably find many others that will suit you as well as this one.

HANDEE WRENCH



HANDIEST TOOL IN THE KIT
A turn of the end and up comes the size you need
Sent post paid $1.00
Agents wanted in all territories
ACCESSORY SUPPLY COMPANY
Indianapolis, Indiana

Easy Now to Rid Your Farm of Rats

Wonderful Discovery by Noted Scientist Kills Every Rat Within a Week's Time—Not a Poison.

Rats cost farmers over two hundred millions of dollars a year, through the destruction of grain, poultry and buildings. Farmers need no longer suffer this loss because they can now kill off all the rats on their farm in less than a week's time. This is possible through the remarkable discovery of E. R. Alexander, a Kansas City chemist, who has perfected a virus which kills rats, mice and gophers as though by magic. This product is not a poison—it can be eaten by human beings or any animal on the farm as safely as their regular food, but means quick, sure death to rats.

This wonderful rat virus, which is known as Alexander Rat-Killer, is merely mixed with bread or meat scraps and placed where rats, mice or gophers can get to it. Within a few hours after a rat has eaten Alexander Rat-Killer he gets a high fever and suffers a terrible thirst. He leaves the barns and nesting holes and goes to the open fields in scarch of pure air and running water. Rats and mice affected always die away from the barns and houses, so there is no odor.

It is a scientific fact that one rat affects others and soon the whole colony leaves the buildings and dies. And though this virus is absolutely deadly to rats—chickens, hogs, cattle or any farm animal can eat it and not be affected at all.

So confident is Mr. Alexander that Alexander Rat-Killer will kill every rat on your farm in less than a week's time that he offers to send, as an introductory offer, a regular $2.00 tube for only $1.00. Give it according to directions, and if at the end of a week's time you are able to discover any rats, mice or gophers on your farm, your money will be refunded. A big Kansas City bank guarantees that Mr. Alexander is reliable and will do as he says.

Send NO MONEY. Just write to E. R. Alexander, Alexander Laboratories, 244 Gateway Station, Kansas City, Mo., and the tube will be mailed at once. When it arrives, pay the postman only one dollar and postage on the guarantee that if not absolutely satisfactory your money will be returned without question. Write today—a postcard will do—and stop your rat losses now.

The Valley of the Giants—*By Peter B. Kyne*

THE dictograph for Shirley arrived on the regular passenger-steamer Thursday, and Bryce called her up to ask when she desired it sent over.

"Good morning, Mr. Cardigan," she greeted him cheerily. "How do you feel this morning? Any the worse for having permitted yourself to be human last night?"

"Why, I feel pretty fine, Shirley. I think it did me a lot of good to crawl out of my shell last night."

"You feel encouraged to go on living, eh?"

"Yes."

"And fighting?"

"By all means."

"Then something has occurred to give you new courage?"

"Oh, many things. Didn't I give an exhibition of my courage in accepting Ogilvy's invitation to dinner, knowing you were going to be there?"

She did not like that. "You carry your frankness to extremes, my friend," she retorted. "I'm sure I've always been much nicer to you than you deserve."

"Nevertheless there wasn't any reason why I should tantalize myself last night.

"Then why did you come?" He had a suspicion that she was laughing silently at him.

"Partly to please Ogilvy, who has fallen head over heels in love with Moira; partly to please Moira, who wanted me to meet you; but mostly to please myself, because, while I dreaded it, nevertheless I wanted to see you again. I comforted myself with the thought that for the sake of appearances we dared not quarrel in the presence of Moira and my friend Ogilvy. At any rate, I have seldom had more enjoyment when partaking of a meal with an enemy."

"Please do not say that," she answered. "I am your opponent, but not your enemy."

"That's nice of you. By the way, Shirley, you may inform your uncle at breakfast Friday morning about my connection with the N. C. O. In fact, I think it would be far better for you if you made it a point to do so."

"Why?"

"Because both Ogilvy and myself have a very strong suspicion that your uncle has a detective or two on our trails. There was a strange man around him all day yesterday, and I noticed a fellow following my car last night. I communicated my suspicions to Ogilvy, and this morning he spent two hours trying to shake the same man off his trail—and couldn't. So I judge your uncle will learn to-day that you dined with us last night."

"Oh, dear! That's terrible."

"Ashamed of having been seen in my company, eh?"

"Please don't. Are you quite serious?"

"Quite."

"Uncle Seth will think it so—so strange."

"He'll probably tell you about it. Better beat him to the issue by 'fessing up, Shirley. Doubtless his suspicions are already aroused, and if you inform him that I am the real builder of the N. C. O., he'll think you've been doing a little private gum-shoe work on behalf of the Laguna Grande Lumber Company."

"Which is exactly what I have been doing," she reminded him.

"I know. But then, I'm not afraid of you, Shirley—that is, any more. And after Friday morning I'll not be afraid of your uncle."

"Oh, dear! I feel as if I were a conspirator."

"I believe you are one. Your dictograph has arrived. Shall I send George Sea Otter over with it? And have you somebody to install it?"

"Oh, bother! Does it have to be installed?"

"It does. You hide the contraption in the room where the conspirators conspire; then you run wires from it into another room where the detectives listen in on the receivers."

"Could George Sea Otter install it?"

"I think he could."

"Will he tell anybody?"

"Not if you ask him not to."

"Very well, then. Please send him over. Thank you so much, Bryce Cardigan. You're an awful good old sort, after all. Really, it hurts me to have to oppose you."

"Let us not argue the question, Shirley. Good-bye."

HE had scarcely finished telephoning George Sea Otter, when Buck Ogilvy strolled into the office and tossed a document on his desk. "There's your little old temporary franchise, old thing," he announced; and with many a hearty laugh he related to Bryce the ingenious means by which he had obtained it. "And now if you will phone your loggingcamp and instruct the woods-boss to lay off about fifty men to rest for the day, pending a hard night's work, and arrange to send them down on the last log-train to-day, I'll drop around after dinner and we'll fly to that jump-crossing. Here's a list of the tools we'll need."

"I'll telephone Colonel Pennington's manager and ask him to kick a switch-engine in on the Laurel Creek spur and snake those flat-cars with my rails aboard out to the junction with the main line," Bryce replied. And he called up—only to be informed by Colonel Pennington himself that it would be impossible to send the switch-engine in until the following afternoon. The Colonel was sorry, but the switch-engine was in the shop having the brick in her fire-box renewed, while the mogul that hauled the log trains would not have time to attend to the matter.

"Why not switch back with the mogul after the log-train has been hauled out on the main line?" Bryce demanded.

Pennington, however, was not trapped. "My dear fellow," he replied patronizingly, "quite impossible, I assure you. That old trestle across the creek. While I'd send the light switch-engine over it and have no fears——"

"I happen to know, Colonel, that the big mogul kicked those flats in to load the rails!"

"And what happened? Why, that old trestle squeaked and shook and gave every evidence of being about to buckle in the center. My engineer threatened to quit if I sent him in again."

"Very well. I suppose I'll have to wait for the switch-engine," Bryce replied resignedly, and hung up. He turned a troubled face to Ogilvy. "Checkmated!" he announced. "The Colonel is lying, Buck, and I've caught him. As a matter of fact, the mogul didn't kick those flats in at all. The switch-engine did—and I know it. Now I'm going to send a man over to snoop around Pennington's roundhouse and verify his report about the switch-engine."

HALF an hour later the messenger returned with the information that not only was the switch engine not in the shop but her fire-box had been overhauled the week before and was reported in excellent condition.

"That settles it," Buck Ogilvy mourned. "He had gum-shoe men on my trail, after all; they have reported, and the Colonel is as suspicious as a rhino."

"Exactly, Buck. He is delaying the game until he can learn something definite." He drummed idly on his desk for several minutes. Then:

"Buck, can you run a locomotive?"

"With one hand, old man."

"Fine business! Well, I guess we'll put in that crossing to-morrow night. The switch-engine will be in the roundhouse at Pennington's mill to-morrow night so we can't steal that; but we can steal the mogul. I'll just send word up to my woods-boss not to have his train loaded when the mogul comes up late to-morrow afternoon to haul it down. He will explain to the engineer and fireman that our big bull donkey went out and we couldn't get our logs down in time to get them loaded. Of course, the engine-crew won't bother to run down to Sequoia for the night—that is, they won't run the mogul down. They'll just leave her at our log-landing and put up for the night at our camp. However, if they should want to return to Sequoia, they'll borrow my track-walker's velocipede."

"But how do you know they will put up at your camp all night, Bryce?"

"My men will make them comfortable, and it means they can lie abed until seven o'clock instead of having to roll out at five o'clock. If they do not stay at our logging-camp, the mogul will stay there, provided my woods-foreman lends them my velocipede. The fireman would prefer that to firing that big mogul all the way back to Sequoia."

"Yes," Buck agreed, "I think he would."

"There is a slight grade at our log-landing. I know that, because the air leaked out of the brakes on a log-train a short time ago, and the train ran away. Now, the engine-crew will set the airbrakes on the mogul and leave her with steam up all night; they'll not blow her down, for that would mean work firing her in the morning. Our task, Buck, will be to throw off the airbrakes and let her glide silently out of our log-landing. About a mile down the road we'll stop, get up steam, run down to the junction with the main line, back in on the Laurel Creek spur, couple on to those flat-cars and breeze merrily down to Sequoia with them. Our men will be congregated in our dry-yard just off Water Street near B, waiting for us to arrive with the rails—and bingo—we go to it. After we drop the flats, we'll run the engine back to the woods, leave it where we found it, return a-flying on the velocipede, if it's there, or in my automobile, if it isn't there. You can get back in ample time to superintend the cutting of the crossing!"

"Spoken like a man!" quoth Buck Ogilvy. "You're the one man in this world for whom I'd steal a locomotive. 'At-a boy!"

Had they known of Pennington's plans to entertain Mayor Poundstone on Thursday night, it is probable they would not have cheered until those flat-cars were out of the woods.

CHATER XXV

MAYOR Poundstone and his wife arrived at Redwood Boulevard at six forty-five Thursday evening. It was with a profound feeling of relief that His Honor lifted the lady from their modest little "flivver," for once inside the Pennington house, he felt, he would be free from a persecution inaugurated by his wife about three months previously. Mrs. Poundstone wanted a new automobile.

"I feel like a perfect fool, calling in this filthy little rattletrap," Mrs. Poundstone protested as they passed up the cement walk.

Mayor Poundstone paused. He had reached the breaking-point.

"In pity's name," he growled, "talk about something else. Give me one night of peace."

"I can't help it," Mrs. P. retorted with asperity. She pointed to Shirley Sumner's car parked under the porte-cochère. "If I had a sedan like that, I could die happy. It only cost thirty-two hundred and fifty dollars."

"I paid six hundred and fifty for the rattletrap, and I couldn't afford that," he almost whimpered. "You were happy with it until I was elected mayor."

"You forget our social position, my dear," she purred sweetly.

"Hang your social position," he gritted savagely. "Social position in a sawmill town! Rats!"

"Sh—sh! Control yourself, Henry!" She lifted the huge knocker.

"You'll drive me crazy yet," Poundstone gurgled, and subsided.

The Pennington butler opened the door and swept them with a faintly disapproving glance.

The Poundstones entered. At the entrance to the living room the butler announced sonorously: "Mayor Poundstone and Mrs. Poundstone."

"Glad to see you," Colonel Pennington boomed with his best air of hearty expansiveness. "Well, well," he continued, leading Mrs. Poundstone to a divan in front of the fire, "this is certainly delightful. My niece will be down in two shakes of a lamb's tail."

Shirley entered the room; and the Colonel, leaving her to entertain the guests, went to a small sideboard in one corner and brought forth the "materials," as he jocularly termed them.

"To your beautiful eyes, Mrs. Poundstone," was Pennington's debonair toast as he fixed Mrs. P.'s green orbs with his own.

"Dee-licious," murmured Mrs. Poundstone. "Perfectly dee-licious. And not a bit strong!"

"Have another," her hospitable host suggested, and he poured it, quite oblivious of the frightened wink which the mayor telegraphed his wife.

They "smoked up," and Poundstone prayed that Mrs. P. would not discuss automobiles.

ALAS! The two cocktails which Mrs. Poundstone had assimilated contained just sufficient "kick" to loosen the lady's tongue.

"I was telling Henry as we came up the walk how greatly I envied you that beautiful sedan, Miss Sumner," she gushed.

Poundstone made one futile attempt to head her off. "And I was telling Mrs. Poundstone," he struck in with a pathetic attempt to appear humorous, "that a little jitney was our gait, and that she might as well abandon her yearning for a closed car."

"Never, my dear." She shook a coy finger at him. "You dear old tightie," she cooed, "you don't realize what a closed car means to a woman."

"Heard the McKinnon people had a man killed up in their woods yesterday, Colonel," Poundstone remarked, hoping against hope to divert the conversation.

"Yes. The fellow's own fault," Pennington replied. "He was warned that the logging-cable was weak at that old splice and liable to pull out of the becket—and sure enough it did."

"I hold to the opinion," Mrs. Poundstone interrupted, "that if one wishes for a thing hard enough, one is bound to get it."

"My dear," said Mr. Poundstone impressively, "if you would only confine yourself to wishing, I assure you your chances for success would be infinitely brighter."

There was no mistaking this rebuke. Shirley and her uncle saw the Mayor's lady flush slightly; they caught the glint of murder in His Honor's eye; and with the nicest tact in the world, Shirley adroitly changed the subject, and Mrs. Poundstone subsided.

About nine o'clock, Shirley, in response to a glance from her relative, convoyed Mrs. Poundstone upstairs, leaving her uncle alone with his prey. Instantly Pennington got down to business.

"Well," he queried, apropos of nothing, "what do you hear with reference to the Northern-California-Oregon Railroad?"

(*Continued on page* 323)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

BRYCE CARDIGAN and Buck Ogilvy are determined that that jump-crossing shall go in. Colonel Seth is equally determined that it shall not. A battle royal is in progress, Bryce and Buck having outwitted the Colonel by obtaining a franchise, the Colonel being the stronger, however, both in finances and because he is utterly unscrupulous.

Shirley fights fairly, and is just beginning to suspect her uncle's methods in protecting their joint interest. She has managed to maintain her friendship with Bryce and also with Moria MacTavish, his office aide, with whom redheaded Buck has fallen deliriously in love. Through Bryce, Shirley obtains a dictograph to overhear the secret conversation of her uncle and Mayor Poundstone.

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Have your chick-raising equipment ready before the chicks arrive — avoid the risk of heavy loss. Whether you grow 25 chicks or 25,000 there are practical, dependable, efficient Prairie State Brooders which will exactly meet your needs. Oil-burning hovers and coal-burning stoves. Perfect in design—built on honor—tested and proved — preferred by successful poultry growers.

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Are stamped with any name or address with serial numbers. They are simple, practical and a distinct and reliable mark. Samples free. Agents wanted.

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$900 Secures 50-Acre Farm

Furnished House; 6 Cattle; Horses, flock poultry, hog, full implements, tools; everything complete to sewing machine for the wife; excellent farming section, many advantages; good markets; 30 acres level loam tillages, spring-watered pasture, woodland; 100 apples, pears, cherries, plums, grapes, etc.; 150 sugar maples; comfortable 7-room house, 40-cow basement barn, poultry house, granary, etc. Owner unable to operate with other large farm; $3,000 takes all if you don't delay. Details, page 53, Illustrated Catalog —Bargains many states. Copy free. Address me personally. E. A. STROUT, Pres., STROUT FARM AGENCY, 150 R Nassau Street, New York City.

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High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear.
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A comprehensive, experienced, prompt service for the protection and development of your ideas. Booklet of information, advice and form for disclosing idea, free on request. RICHARD B. OWEN, 94 OWEN BUILDING, WASHINGTON, D. C.

BUY YOUR CIGARS DIRECT—FIFTY HAND MADES prepaid. $1.50. Agents wanted. HAVANA SMOKEHOUSE, HOMELAND, GA.

Live Stock Offerings

either for sale or purchase. Can best be reached through a live medium. Classified advertisements in the AMERICAN AGRICULTURIST bring substantial results from both near and far.

New Advertisers in this Issue

Star Lubricating Oil Co.
L. Simon
Nicol Nook Gardens
S. M. Gibson
J. B. Colt
S. G. Bealer
H. B. Shenk
F. G. Mangus
Wm. Galloway Co.
W. A. Lauver
Geo. M. Rittenhouse

Among the Farmers

Northern New York and County Notes

OUT of 370 girls enrolled in junior extension work in Jefferson County, 315 attended Home Makers' Day at Watertown last week. This was declared by State leaders to be the first gathering of its kind ever held in the State.

The St. Lawrence County Farm Bureau is working hard to start the "accredited herd" work on a county-wide basis in the near future. Many of the members of the Board of Supervisors are personally behind the movement.

The Gouverneur Limestone Co. has just completed the installation of new equipment for grinding limestone for agricultural purposes. Many parts of these counties can greatly increase their production per man on the farms by using more lime.

Winter Long and Severe

Winter has been keeping up, and a blizzard twice in one week recently filled the roads as full as they have been at any time this winter, even the railroad having to operate plows to keep traffic moving. There has been a great deal of sickness during the last winter, whole families being ill at one time with grippe. With the growing scarcity of country doctors and the hard traveling, it has been a serious situation in many sections, cases being reported of one farmer on a road taking medicine from the doctor to the different families along the way, as the doctor could not get nearly around.

Maple men are getting ready for the tapping which experienced weather men say should come in two weeks, or about the 25th. Indications now are for a good flow. There is a division in the feelings of the men regarding the Maple Products Association. Some are not going to stick by, while others are planning to carry on to the last and put the association on its feet.

With a third of the milk poolers in Franklin, St. Lawrence, Lewis and Jefferson counties withdrawn, speculation is rife as to what developments the future will bring forth. The greater share of the withdrawals have come from cheese territory. The directors have expressed themselves as being somewhat surprised at the small numbers of Class I men who pulled out.

Plans to carry out a country theater at the county fair in September were discussed by the Jefferson County Pomona last week. A committee from the Grange and Home Bureau will complete arrangements in cooperation with the fair association officials. Local granges will put on exhibits at the fair this year for the second time.—W. I. R.

Lewis County Notes

The farmers in this section have been busily engaged in hauling home mill feeds, to tide them over the spell of bad roads that occurs every spring, when the frost is coming out of the ground, while others who have sugar bushes to tap are getting their utensils in order that they may be able to get the first run of sap, which is apt to come now most any time in this latitude. Everything points to a successful season for the sugar-makers this year. There is an abundance of frost in the ground, but, of course, it is rather early to predict with certainty as to what the season will be, as the weather we have after the season starts usually governs the amount of sap obtained.

Over 1,000 farmers here in Lewis and Jefferson counties cancelled their contracts with the Dairymen's League Cooperative Association during the period which closed on March 1. This will, of course, weaken their strength somewhat here in the North Country, but I understand the new contracts made during the past year almost equal the withdrawals, so they are not losing so much ground after all.

They don't appear to be having as many farmer meetings hereabouts as in other years and don't know why, unless the dairymen feel so sure of themselves that it is not necessary. The price of milk delivered at the Sheffield Farms plant located here is $2.43 per hundred for March, which is the flat rate with the usual differentials for butterfat, which seems to be a fair price for this season of the year.

Hired help is now being engaged for the coming season, and farmers are experiencing some difficulty in securing enough men to meet their needs, as the industries are all booming and offering higher wagers than farmers can afford to pay.—CHARLES L. STILES.

Washington Co.—The farmers who have the help are cutting and marketing the wood, prices about $8 a cord. No produce going to market. Very few potatoes in farmers' hands. Prospects for farmers getting help this coming season are very poor. Those willing to work on the farm are asking $50 a month with board, room and washing. Many auctions are being held. Several farms will remain idle this coming season.—H. C. C.

The snow has been so deep that farmers have not been able to do much. Ice houses are well filled, but quality is poor. Saw mills are not running much, so it is almost impossible to get sawdust to cover the ice. Several farms have been sold for good prices. More would like to sell, but buyers are few. Farm help is almost out of reach. Hay, $14 to 16; rye straw, $20 to $21; rye, 75c a bushel; oats, 70c; hay at auction, $8 to $12 in the barn. Horses are selling slowly. Cows from $40 to $90 at auction. Very little demand for young cattle.—F. P. P.

COUNTY NOTES

Schenectady Co.—The unusual amount of snow this winter has made it impossible for farmers to market much of their produce. Milk and mail carriers have had a hard time of it. Many farmers are complaining about low water in cisterns on account of so little thawing. There is but little frost in the ground. Eggs are bringing about 40c, butter is rather scarce bringing 50c at the stores. Not much sales for cows, especially old ones. Very few auction sales this winter. —S. W. C.

Cortland Co.—During the first week of March the weather was considerably milder than February's weather. However, farmers have not been able to get out a great deal, due to the extremely bad roads. The following prices prevail: potatoes, 50c a bushel; eggs, 38c; poultry, 25c; good maple wood sells fast at $5 a cord. Farmers have completed their ice harvest—the quality was good. —G. A. B.

Ontario Co.—February was an old-fashioned winter month. The thermometer dropped below zero many times, even to-day some roads are filled with snow. The farmers are not very enthusiastic. The prices of farm produce are low, taxes are higher than ever and hired help is a serious problem. Many auctions are being held and property is selling low. Hay, $16; potatoes, 45c; corn, 45c; butter, 40c; eggs, 38c; red marrow, kidney and pea beans, $7 per cwt.; wheat, $1.25; barley, 60c; buckwheat, $1.50 a hundred.—E. P. BRIZZEE.

The Valley of the Giants

(*Continued from page* 322)

"Oh, the usual amount of wind, Colonel. Nobody knows what to make of that outfit."

Pennington studied the end of his cigar a moment. "Well, I don't know what to think of that project either," he admitted presently. "I've been waiting to see whether they will apply for a franchise to enter the city, but they seem to be taking their time."

"They certainly are a deliberate crowd," the Mayor murmured.

"Have they made any move to get a franchise?" Pennington asked bluntly. "If they have, you would be the first man to hear about it. I don't mean to be impertinent," he added with a gracious smile, "but the fact is I noticed that windbag Ogilvy entering your office the other afternoon, and I couldn't help wondering whether his visit was social or official."

"Social—so far as I could observe," Poundstone replied truthfully, wondering just how much Pennington knew.

(*Continued next week*)

World's Best Roofing at Factory Prices

"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Sidings, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Save money—get better quality and lasting satisfaction.

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POST YOUR FARM

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We have printed on linen lined board trespass notices that comply in all respects to the new law of New York State. We unreservedly advise land owners to post their farms. We have a large supply of these notices and will send one dozen to any subscriber for 60 cents. Larger quantities at same rate. Address:

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PROVED BEST by 80 years' use. It will please you. The ONLY PAINT endorsed by the "GRANGE" for 47 years.
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Lowest Prices Ever Quoted

on Peerless fence. Write for free 104 page catalog giving new low prices on Fencing—Barb Wire—Steel Posts Gates—Roofing and Paint. Save 40%. Satisfaction guaranteed.

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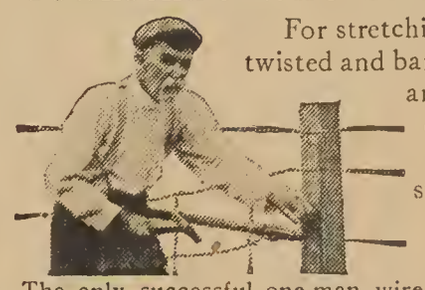

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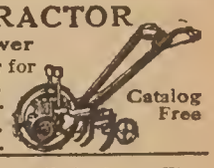

Catalog Free

American Farm Machine Co.
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POTATOES Bliss, Cobbler, Green Mt., Six Weeks, Queen, King, Rose, Russet; others. C. W. FORD, Fishers, N. Y.

Give a thought to Advertising

ONE criticism of the American Agriculturist made by members of the Journalism course at the State College of Agriculture at Cornell University, was that we ran too many small advertisements. In the opinion of these young men who are giving their time and study to advertising methods, small advertisements don't receive as much attention as large ones in proportion to their size. And they also believe that small advertisements clutter up the paper and make it hard reading.

We would like to know what our readers think about this subject. Do small advertisements have as much influence with you as large ones? Or a better way to judge would be: does a large advertisement have four times as much influence as one only one-quarter as large? And in your opinion do a lot of small advertisements make the paper hard to read, or do you enjoy them? Let us know what you think about it. Then we can make this paper reflect the wishes of a majority of its readers.

Also our advertisers will be interested to know what size advertisements you like and notice the most. Each advertiser has his own idea as to the best size to run. Some believe that a little advertisement, run every week, does more good than one four times as large run once a month. Other advertisers believe in large advertisements and never run small ones.

There's a lot to be said on both sides. Of course, a big ad is easier to see and read, though it costs more. But here is what one man writes about a small ad, a very small one—only one-half inch:

"Dear Sirs:—I had fine results from the free ad which you inserted in the Agriculturist.

"When I have more stock for sale I will remember what the free ad did for me."

And here's another letter from a firm that's been running a very small advertisement. They certainly got good results:

"Please discontinue my ad in your paper until further notice as I am getting *too many orders.*"

So you see, the little advertisements certainly pay sometimes. Now, what do you think about them? Read all the advertisements in this issue carefully, compare them, and then let us know which in your opinion are the best—the big ones or the little ones?

* * * * * *

Advertising has been called "Eye-Sight Salesmanship." That expresses the whole idea in a nut shell. For advertising sells products to peoples' eyes instead of to their ears the way a salesman does.

* * * * * *

One hundred years ago, if a farmer in Syracuse had wanted to sell his products in New York City he would have to take them there himself. Which would have been a lot of trouble. Now all he has to do is put a little advertisement in a paper and wait for the New York man to come and get his products. That's the power of advertising.

And the more we think about it, the more we are convinced that it pays to give a thought to advertising.

Advertising Manager

Now Is the Time to Serve Eggs

A Variety of Recipes for Biddy's Contribution to the Spring Table

EGGS are dropping lower every day. The farmer's wife whose hens are working overtime would do well to divert some of the supply to her own table. Eggs are extremely nourishing, and the ways in which they may be prepared are legion. No need to say that anyone "gets tired" of them if these recipes are applied:

English Egg Pie

Cut into slices 6 hard-boiled eggs. Melt 2 tablespoons butter in a small stewpan, stir in a tablespoon of flour, then pour in half pint milk and let boil for 5 minutes, stirring all the time. Add a teaspoon of chopped parsley and salt and pepper to taste.

Fill a buttered baking dish with alternate layers of sliced eggs, white sauce, and bread crumbs covering the top with the sauce, bread crumbs and bits of butter. Bake 15 minutes.

Poached Eggs, Spanish Style

Break eggs and drop carefully into a shallow pan half filled with briskly boiling water, to which salt and a tablespoon of vinegar have been added. Cook slowly until eggs are set; remove each with a skimmer and arrange on a bed of rice seasoned with butter. Pour around the base a hot tomato sauce made as follows:

Cut up 3 slices bacon in saucepan, add small onion, chopped fine, and brown slightly. Then add 2 tablespoons flour, and a cup and a half tomatoes. Stir until thick. Season with half teaspoon of salt, a few gratings of nutmeg, a dash of cayenne, and a tablespoonful of chopped green peppers.

Eggs, Club Style

Break an egg into each tin of a well-greased muffin pan; cover the top of each egg with a thin shaving of onion, grated cheese, butter, paprika, salt and pepper. Bake in oven 15 or 20 minutes.

Cheese Souffle

Melt 2 tablespoons butter, add 3 tablespoons flour, and when well mixed pour in slowly half cup of milk. Add half tablespoon salt, a few grains of cayenne pepper, and cup of grated cheese. Remove from the fire and add beaten yolks of 3 eggs. Allow mixture to cool, then mix in 2 teaspoons of baking powder and well-beaten whites of 3 eggs; bake in buttered dish about 25 minutes in a slow oven. Serve immediately.

Puffy Omelet

To the yolks of 4 eggs add a half teaspoon salt, 2 teaspoons baking powder, 1 tablespoon corn starch, and a half cup of milk. Beat 4 egg whites until very light and mix thoroughly with yolks. Pour into well-greased, very hot frying pan and cook slowly until puffed up. Place in the oven for a minute or two, then fold and serve immediately. Jelly or preserved fruit may be folded in and the top sprinkled with powdered sugar.

Poached Eggs with Spinach

Arrange poached eggs on a mound of spinach which has been put through a sieve. Cover base with white sauce, as for the English Egg Pie. Garnish with triangles of toasted bread.

Scrambled Eggs with Dried Beef

Cover with cold water about one-fourth pound dried beef which has been shredded into small pieces and heat, but do not boil. Melt a tablespoon of butter in frying pan; mix drained beef with 3 eggs beaten with 3 tablespoons milk, and pour into hot frying pan. Cook over slow fire and as eggs begin to thicken stir until cooked.

A Hen's Nest

This is a favorite with all who try it. Six hard-boiled eggs, 1 cup cold chicken, ham or any meat; teaspoon chopped parsley; half teaspoon salt; dash of pepper. Separate the white and yolks—cut the whites into long strips, and set aside to warm in a slow oven, first dotting with butter. Mix the other ingredients, and make in small egg shapes. Heap in dish and arrange whites around them in imitation of a nest, and pour over all the following sauce; 3 tablespoons butter, 2 tablespoons flour; 1 cup milk; ¼ teaspoon salt. Melt butter in top of double boiler, blend in flour, and when smooth add the milk, cooking until thick.

Omelet

Beat 4 eggs with 4 tablespoons milk or cream, add half teaspoon salt, pepper to taste. Melt tablespoon of butter in a hot frying pan, pour in mixture and cook slowly until set; lift the edges of omelet to allow the uncooked part to run underneath. When brown on the bottom fold in the ends so as to give the form of an oval cushion.

This plain omelet can be varied in infinite ways by the addition of other ingredients just before it is folded. For instance, the center may be filled with green peas, and a white sauce poured over the omelet. Finely cut beef, tongue, ham, cold slices of bacon, cheese, mushrooms, asparagus, tomato sauce, fried onions, oysters, chicken livers, minced chicken, sausage meat, mashed potatoes, olives, are all used. They may be mixed with the beaten eggs before cooking, or folded in the omelet after it is cooked.

Sponge Drops

Four eggs; half a cup powdered sugar; dash of salt; teaspoon flavoring; ¾ cups cake flour. Beat eggs until light and lemon colored, add sugar and salt, and flavoring, then gently roll in the flour, into which you have put ¼ teaspoon cream of tartar. Drop by spoonfuls in a cookie pan and sprinkle with powdered sugar. Bake in a slow oven.

Columbus Eggs

Peel the shells from a dozen hard-boiled eggs and cut each egg in two around the center, cutting off a little piece from each end, so they will stand on end, as did the famous egg which Columbus handled; pulverize the yolks and mix with finely minced chicken, ham or meat. Moisten with butter, and vinegar, salt, pepper, and a little mustard. Fill into empty whites, taking care to not break them. Press the two parts together and stand on a platter. The filling which remains over may be poured around the eggs, after mixing with thin mayonaise.

THE HYACINTH'S COLLAR

"I'm disappointed in my hyacinths," said Mrs. New. "They cost enough to be pretty good, but see how the blossoms are starting to come out in a little, squatty ball, away down between the leaves!"

"Your hyacinth needed a collar to grow in," explained the neighbor. "May I use this stiff paper and a couple of pins?" Mrs. Frye deftly pinned the paper into a cylinder slightly smaller in diameter than the flower pot. This she set down over the bulb.

"This hyacinth needs such a high-stand pipe because we didn't put one on sooner. Six inches tall is usually high enough. The paper makes the flower stalk reach up and discourages the top flowers from blooming too long before the rest. I am in the habit of putting a collar on my hyacinths at the time of bringing them out to the light," explained Mrs. Frye. "Most of them need to wear it only a little while then."

MAKING A BURLAP RUG

A combination rag and burlap rug, easy to make and effective, is described by Mrs. Katharine A. Dewey, an American Agriculturist reader, as follows:

"I washed a burlap sack, ripped out the seams and hemmed it. Then I cut rags into strips about an inch wide and sewed them end to end. Using the sack threads as the warp of the rug, I used a strong wire hairpin to weave my rags back and forth, drawing the rag under three threads of the sack at once so as to hold the rag firmly in place on the sack.

"One can make very pretty designs in this way, striped, hit or miss, or plain, with a pretty border. To make the rug different and still prettier, the sack can be dyed dark green, blue, or red. This rug takes far fewer rags than a crocheted or braided rug, and is much more quickly made."

A CROSS-STITCH CENTERPIECE

Everybody likes to do cross-stitch. It is so easy, works so quickly and the final result is sure to be effective.

Cross-stitch demands color and nowadays the brighter the color the better! Brilliant reds, blues and yellows, either used in one color or combined, are popular.

The centerpiece shown in the picture was designed especially for the readers of the magazines. The original, on tan linen, had blue cross-stitch and was finished with a deep hem caught up by very deep and widely separated scollop stitches. It may be finished instead with a rolled hem and lace. The centerpiece is twenty-four inches in diameter.

If you use white goods, softer colors might be prettier. Oyster white, with two shades of blue, is attractive; so is tan with red and black.

A transfer pattern of this original design will be sent on receipt of 12 cents in stamps. Ask for E7 and address your order to Handicraft Department.

E7.—Cross-stitch Centerpiece Transfer Design, 12c.

U.S. ARMY MUNSON SHOE
SEND NO MONEY
Just give size and we will send you the biggest work shoe bargain offered in years. Inspected and built to rigid specifications. Made on the Munson last, of triple tanned chrome leather. Solid oak leather soles. Dirt, water and acid proof. Pay postman $2.75 plus postage on arrival. Money back if not pleased.
$2.75
Sizes 5½ to 12
YOU SAVE $2
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ARECO BLEND COFFEE 32¢ lb
In 5 lb. Lots
Bean or Ground
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Saving Retailer's Profit
SENT PARCEL POST PREPAID ON RECEIPT OF YOUR CHECK, MONEY ORDER OR CASH
Satisfaction Guaranteed or Money Back
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Without Mug
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are on sale at Photo Supply and Album counters everywhere. They are the only Quick, Easy, Artistic, No Paste, No Fold way to mount Kodak Prints. A dime brings 100 and samples to try. Write
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You can be quickly cured, if you
STAMMER
Send 10 cents for 288-page book on Stammering and Stuttering, "Its Cause and Cure." It tells how I cured myself after stammering 20 yrs. B. N. Bogue, 5108 Bogue Bldg., 1147 N. Ill. St., Indianapolis.

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Easy—(Sworn proof) introducing New Style Guaranteed Hosiery—Must wear or replaced free. Experience unnecessary—Spare time satisfactory. Your pay daily in advance. Simply write orders. We deliver and collect. Samples furnished. All colors-grades including silks.
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Wedding Anniversaries

Gladys S. Johnson Tells How to Celebrate Them

IT is becoming more and more customary to celebrate in an informal and amusing manner, anniversaries of the first wedded years. There is the cotton wedding, at the end of the first year, when the table is made gay with balls of cotton and little pickanninies scattered about, and pods of cotton hang from the chandelier. The second anniversary, which is the paper wedding, calls for a complete paper service at the table. Everything, except the knives and forks, can be obtained in paper, from paper plates, paper cups, paper spoons, paper doilies, and paper napkins to paper flowers for the decorations.

Likewise, in celebrating the fifth anniversary or wooden wedding, wooden plates, knives, forks, and spoons should be used. The centerpiece should be a large wooden mixing bowl filled with flowers. The tenth anniversary, the tin wedding, offers endless suggestions in the way of glittering tin table service. A large tin pan in the center and tin plates, tin spoons, and tin cups are but a few of the tin articles one can buy for a few cents.

Decorations that are Attractive

The crystal wedding, which comes at the end of fifteen years of married life, offers an opportunity for more beautiful decorations and appointments. As far as possible only glass should be used in serving the anniversary dinner. With the glass cooking utensils now on the market this should not be difficult. Glass candlesticks should be placed beside each plate and crystal beads festooned from the chandelier. A mirror with flowers banked about it would make a suitable centerpiece.

The china wedding, which marks the twentieth anniversary, can also be made a very decorative one by the use of Chinese decorations. If possible, a Chinese dinner should be served as nearly as possible in the the Oriental manner. Chinese lanterns should be hung all about the room and flowers arranged in Chinese vases should carry out the scheme of decoration. The host and hostess in Chinese costumes should receive their guests with Oriental bows and suave courtesies.

SAVE CHICKEN FEATHERS

CLARICE RAYMOND

Before you scald that fowl for picking, just take the carving knife and unjoint the wings at the first joint. Then rub the "cut" ends in some live coals and ashes, doing it very quickly so as not to burn the feathers, and lay them on the stove shelf to dry. It will take them several days or perhaps a week to become thoroughly dry, so as not to be breeding moths.

These wings are very useful for many things. Dusting the stove, cleaning cupboard shelves, as one can fit them into the corners so nicely, also cleaning out the bureau drawers, box covers, trunks, the corners of the rooms—as most of us are not blessed with round-cornered rooms, although I recently saw a fine new house in which every room has "round corners." How happy that housewife must be with no corners to clean!

When you pick the fowl, consign all the bloody feathers, also the large ones and the pin-feathers, to the kitchen stove. The rest, wash clean, spread and dry, and you will have something to fill those coveted couch and chair cushions with. They also are good for filling pillows, and, if one has more than she can use, there is always a market for them.

EASY PATTERNS WHICH GIVE EXCELLENT RESULTS

VERY girlish is the effect of **No. 1430**, yet it is perfectly suitable for the older woman too. The original was made in gingham and organdie, but there are many pretty summer combinations that might be used. This dress was especially designed to stand many tubbings, and because it is cut in one piece, with set-in sleeves, it also irons easily. The double tie belts are very smart this year.

No. 1430 cuts in sizes 16 years, 36, 38, 40 and 42-bust measure. Size 36 requires 3¼ yards 36-inch material with ¾ yard 36-inch contrasting. **Price**, **12c** in stamps or coin (wrap coin carefully; stamps are safer).

NO. 1638 is another of the apron-dress or dress-apron type, brightened up in this case by a touch of embroidery. It is the popular one-piece style, the sleeves cut in one with the front and back. The sash ends, which are caught in with the underarm seams, continue around and tie at the back.

This style may be made in gingham, chambray or cretonne. The gayest possible colors are used both in materials and for embroidery these days.

No. 1638 cuts in sizes 34, 36, 38, 40, 42, 44 and 46-inch bust measure. Size 36 requires 3½ yards 36-inch material, with ¼ yard contrasting. **Price, 12c.** Transfer **No. 602**, blue only, **12c extra**.

AS a dress to wear to town or in the automobile, **No. 1720** has obvious advantages. It may be made in tweed or other lightweight cloth, in cotton or in tub silk. The binding (or braid) and collar furnish the only trimming; the lines of the dress are simple and the style smart, but a bit severe. There is a choice of sleeves, as the material you use might influence your taste, and a jaunty little inset pocket on the right side, to balance the side closing on the left.

No. 1720 is cut in sizes 16 years, 36, 38, 40 and 42-inches bust measure. Size 36 requires 3¼ yards 36-inch material with ¼ yard for collar and 3¼ yards binding. **Price 12c.** (Stamps preferred).

To Order: Write name, address, pattern numbers and sizes legibly, enclose amount and send to Pattern Department, American Agriculturist, 461 Fourth Avenue, New York. You will probably want to add 10c for a copy of our spring Fashion Book, a catalogue crammed with smart designs, pictures of the dresses as they look when made up, style suggestions, embroidery ideas, and other useful information about the fashions.

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Reviewing the Latest Eastern Markets and Prices

WHERE ARE ALL THOSE POTATOES?

HERSCHEL H. JONES

DEALERS and shippers have been puzzled by the surprising advance of wholesale prices for potatoes in the last month and the fairly steady market, in view of the official estimates given out last fall as to the enormous size of this year's crop. The question has been raised as to whether the estimates of the largest crop in years were accurate, and if so, what has become of all the potatoes?

The Federal Department of Agriculture has not seen fit to revise its crop estimates, but it gave out some information last week which was interpreted as follows by the New York State Department of Farms and Markets:

"With more potatoes grown last fall than ordinarily, there had deteriorated by March 1 approximately 40,000 carloads. Further shrinkage and loss will reduce the supplies of good No. 1 potatoes, but even if 90,000 carloads were available the daily shipments from March 1 to the end of June would have to average 750 cars to use all marketable stock. March shipments have averaged 700 cars a day, but the movement is gradually decreasing, and last week there were filled only 4,450 cars, or about 400 cars less than in the preceding week. In consequence of the reduction in acreage of early potatoes in Southern states and a reduction in intermediate sections, there may be a better opportunity for Northern growers and dealers to dispose of old potatoes. The delay of heavy movement from Florida until April 20 will also give an outlet for Northern stocks. Cold weather caused considerable damage to early potatoes."

Stocks of white potatoes in hand of growers and dealers on March 1, 1923, in 21 Northern states which produce about four-fifths of the crop of the entire United States are reported at 152,117,000 bushels, compared with 102,764,000 bushels on March 1, 1922. Stocks in these states on March 1 this year show 42.4 per cent remaining of the total production of 358,815,000 bushels in 1922, while stocks on March 1 last year represented 35.4 per cent remaining of the 1921 production of 290,285,000 bushels.

The total carlot shipments of potatoes up to March 25 were 206,661 cars, compared with 201,198 last season to date, and 238,285 for the entire last season. New York State's shipments, excluding Long Island, to March 25, were 9,519 cars, compared with 12,269 to same date last year.

POTATO MARKET UP AND DOWN

State potatoes in New York City markets reached $3.75 to $4 per 150-lb. sack last week. Shippers quoted up to $3.50 per sack on carlots delivered. Buyers turned their attention to Western stock and bought 150-lb. sacks freely at $2.40 to $3.25.

Up-State growers sold some stock for $1 per bu., but this price did not hold. When later in the week prices at New York dropped to $2.50 to $3 per sack, with only very few fancy, higher, loaders refused to pay over 60c per bu. At the end of the week, because of the Jewish holidays, buyers held off expecting heavy supplies and light demand.

Florida potatoes came in more freely and were sold at $12 to $15 per bbl.

RAW WOOL MORE ACTIVE

The quiet of the larger wool markets gave way in late March and early April to healthy trading, with buyers stating their needs more openly, better grades of wools changing hands at firm prices and the whole trade watching closely the trend of the contract business on raw fleeces in the country. The optimism was one concerning the strength of the market rather than over advance in prices, although the Boston wool market is several cents a pound higher on the best domestic grades than one month ago. Wage increases in several of the large woolen mills gave rise to the impression that the outlook would be good this season on manufactured wools, and foreign markets report a good business in wools ready for the mills. The Philadelphia market reacted more slowly, but later underwent the same improvement.

At Boston, Ohio and Pennsylvania unwashed fleeces, fine delaine, sold in late March at 56 to 58c per lb., ¼-blood 50 @ 51c, ⅜-blood 52 @ 53c, ½-blood 55 @ 56c.

DRIED BEANS NO BETTER

The New York market for dried beans shows no improvement in spite of high prices at country points. The Michigan market last week was about $7.60 to $7.65, equivalent to about $8.15 per 100-lb. bag on the dock at New York. Both State and Michigan choice pea beans were being sold, spot at New York, however, at $8.40 to $8.50, which would hardly cover cartage and other charges above the price given above.

State white kidneys were held in first hands at about $9.75. In order to make a reasonable profit, dealers should get at least $10.60 for white kidneys that cost them $9.75 up-State, yet fanciest whites are selling here spot at $9.75 per 100-lb. bag.

HAY MARKET GETTING FIRMER

Due to the refusal of the New York Central to issue permits for the shipment of hay during the last three weeks, the arrivals at the 33d Street sheds were lighter, and the market tended to become considerably firmer toward the end of last week. The bad condition of the roads in the country is likely to prevent very heavy shipping in the next few weeks, and the stocks of hay on hand at various loading stations in New York at present are not heavy. Consequently, a better market is expected for the next week or so. River shipments by barge, which usually tend to bring the market down on ordinary grades of hay, will not be started until about the middle of April. Quotations are given in the box in the center of this page.

FANCY APPLES IN DEMAND

Barreled apples were in light supply last week, and there was a strong demand for fancy fruit. Much of the fruit, especially Greenings, showed scald from storage and were not desirable. Wholesale prices, March 29, per bbl., A grade, 2½-inch, were as follows:

Variety	Best	Fancy	Ordinary
Baldwins	$5.25@ 5.50	$5.75@ 6	$4.50@4.75
Greenings	5.50@ 5.75	6 @ 6.25	4.50@5
Ben Davis	3.50@ 3.75	4 @	3 @3.25
N. Spy..	10 @11	12 @13	7 @8

At this time last year best Greenings sold at $8.50 to $10 per bbl., Baldwins $7.50 to $8, Northern Spys $8 to $9, Ben Davis $6.50 to $6.75.

EGG RECEIPTS HEAVY

In spite of the blizzards, egg shipments were heavier last week than in the corresponding weeks of 1922 and 1921, chiefly from the Middle West. The demand for fancy large eggs was very strong on account of the Easter trade, however. There was considerable accumulation of nearby white eggs, and the market weakened on the bulk of the nearby eggs received. Selected New Jersey hennery whites were scarce and brought more than their usual

The market on intermediate and low grades was very unsatisfactory. The range of prices paid was wide and dealers were frequently confronted with the problem of sacrificing eggs of ordinary quality at below the market price, or holding them on an uncertain market that might decline rapidly. Many lots were cleaned up early last week at 28 to 30c per dozen, and only very fancy quality sold as high as 38 to 39c.

It is the general belief in the market that eggs will fall sharply after Easter, and that the large markets will be flooded in the next month. Monday and Friday last week the receipts at New York were over 236,000 cases, compared with 159,000 in the previous six days, and 138,000 cases in the corresponding period last year. Storage packed firsts are now selling at 27 to 27½c per dozen at New York, with some good packs at 28c. The bulk of trade in Western eggs, regular pack, last week, was within a range of 24 to 25½c. The chain stores are offering guaranteed fresh eggs to consumers at 29c per dozen.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on March 29:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	41@44	......	......
Other hennery whites, extras	38@40	29@30	......
Extra firsts	35@37	......	26½
Firsts	32@34	......	25
Gathered, whites, first to extra firsts	......	......	......
Lower grades	32@37	......	......
Hennery browns, extras	33@34	......	......
Gathered browns and mixed colors, extras	30@32	28@29	......
Pullets No. 1	27@28	......	......
Butter (cents per pound)			
Creamery (salted) high score	49½@50	55@56	......
Extra (92 score)	49	53@55	48½
State dairy (salted), finest	48½	51@52	......
Good to prime	47½@48	43@50	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$25@26	$20@21	$ 21
Timothy No. 3	23@24	......	1 @19
Timothy Sample	16@18	......	......
Fancy light clover mixed	25@26	......	21@22
Alfalfa, second cutting	30@31	......	......
Oat straw No. 1	18@19	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	32@33	31@32	31@32
Fowls, leghorns and poor	29@30	28@30	......
Chickens, leghorns	29@30	21@23	28@30
Roosters	15@16	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	13½@14¼	11@15	......
Bulls, common to good	4@ 4¾	4@ 6	......
Lambs, common to good	9½@12½	14@15	......
Sheep, common to good ewes	3½@ 5½	6@ 8½	......
Hogs, Yorkers	9@ 9¼	9	......

POULTRY MARKET ACTIVE

Express shipments of fowls sold at 30 to 34c lb. most of the week. Some White Leghorn fowls sold at 30c. Express shipments of broilers sold very readily at 75c each for colored and 70c for White Leghorn.

Capons, live, by freight, average run, sold at 35 to 40c lb. Ducks from Long Island, 35c. lb.; from other nearby sections, 28 @ 30c; pigeons, per pair, live, 65c; rabbits, 32 @ 35c. lb.

BUTTER MARKET UNCERTAIN

Although a high level of wholesale prices for butter continued last week, the general feeling was very nervous, due to anticipation of heavier supplies. A year ago fresh creamery extras were quoted at 37 to 37½c, or 11½ to 12c below the present wholesale rates. Part of the advance in prices is due to improved industrial conditions. Demand for immediate consumption very nearly balances the present receipts, but occasionally the desire on the part of buyers to secure their supplies ahead of time tends to stimulate a higher market than the general situation would seem to warrant. For this reason, the market has played back and forth between 49 and 51c per pound for fresh creamery extras for several weeks past. There is an unusually narrow range between the poorest and best grades of butter at present, due to the fact that a greater proportion than usual of the stock is of fine quality.

DRESSED CALVES IN DEMAND

Receipts of country-dressed veal calves early in the week before Easter were moderate, and the demand for them was active, with a firm market until the end of the week, when receipts became much heavier. The proportion of really fancy heavy veals was very limited, and these often sold at a considerable premium over general quotations. Many shipments were made a little too late to get the best pre-Easter market.

Apparently dressed hot-house lambs were held back for the Easter trade, as supply was very limited until the middle of the week. The demand was active, and dealers had many orders to fill, so that the receipts were quickly absorbed and the market continued strong. First half of last week the sale price was $12 to $13 each, with some sales of selected fancy lambs at $14 to $15, and even up to $17. The demand will be less active and prices lower when the Easter trade is supplied.

FEED PRICES BREAKING

The usual spring decline in feed prices was evident in the Buffalo wholesale feed market last week. Liberal offerings and slow demand brought down wholesale prices on all feeds except white hominy. Gluten feed dropped $2 per ton. Quotations March 28 on carlots, Buffalo rate basis in 100-lb. sacks per ton, were:

Gluten feed, $44.55; cottonseed meal, 36 per cent, $45.75; oil meal, 31 per cent, $39.50; standard spring bran, $33.75; hard winter bran, $34.25; standard spring middlings, $33.75; choice flour middlings, $35.25; white hominy, $32.05; No. 2 yellow corn, per bushel, 85½c; No. 2 white oats, 51½; barley, feed, 72 @ 76c; No. 2 rye, 92c.

CASH GRAINS AT NEW YORK

The following were cash grain prices at New York March 30:

No. 2 red wheat, $1.45¾; No. 2 hard winter, $1.32¼; No. 2 mixed durum, $1.22¾; No. 2 yellow corn, 93¾c; No. 2 mixed corn, 93¼c; No. 2 white oats, 56 @56½c; rye, 92c; barley, 81 @ 82c; buckwheat, $1.86½ @ 2.10. At Chicago: No. 2 yellow corn, 76c; No. 2 white oats, 45¼ @ 46c.

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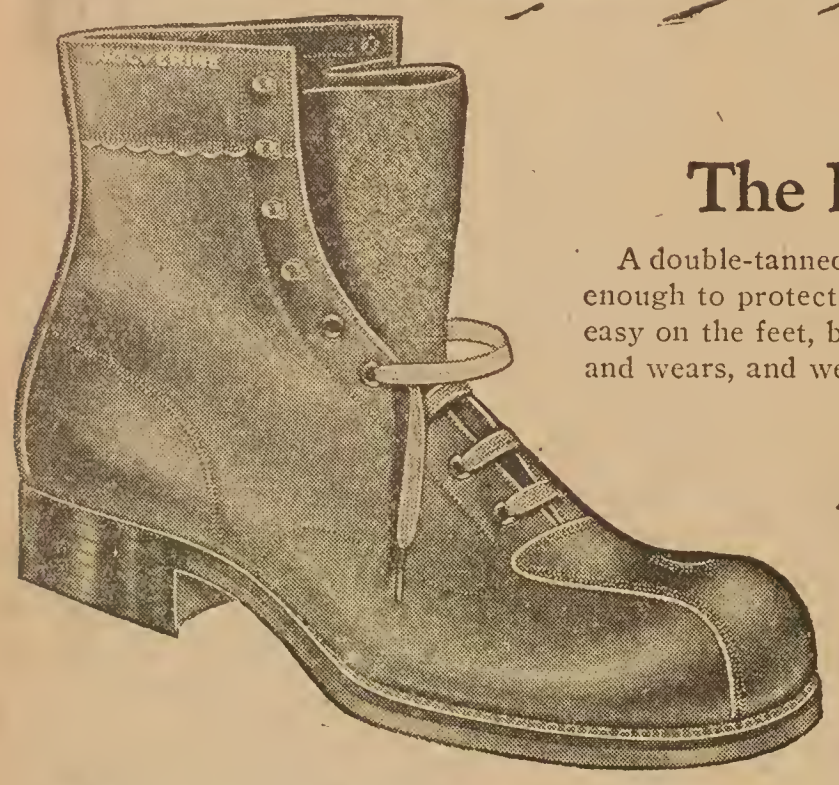

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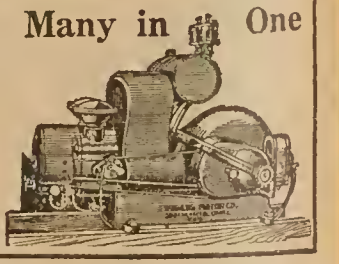

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AMERICAN AGRICULTURIST

Founded 1842

VOLUME 111 APRIL 14, 1923 NUMBER 15

"And The Sower Went Forth To Sow"

The Passing of a Great Farm Industry—Ray F. Pollard

Is the American Home Slipping?

Something Is Needed to Dignify the World's Most Important Profession

By A MERE MAN

SOME foolhardy man writer with more courage than sense recently said that there is nothing that woman does that man cannot do better. I understand that when the indignant and expressive sex got through with that writer after his rash statement, he crawled into a hole and pulled the hole in after him.

I realize the chances I take in discussing women or any of their interests, but I have some rather emphatic views on the home, woman's place in it, and on the work which the Home Bureaus are doing, and in spite of the danger, I am going to discuss them. I shall at least avoid the likelihood of personal annihilation for my remarks by omitting to sign them. So here goes.

The home is the most important factor in the development of all that is good in human life. It is the fundamental unit of society and the foundation rock of every successful nation. The history shows that the downfall of each nation began with the lowering of the standards of its homes. Practically every effort in the world's history of communism has failed, no matter how high the ideals upon which it was started, because such efforts put the community life before the home life, or did not recognize the sanctity of the home at all.

A Distinct Tendency Downward

I am not a pessimist, but it seems to me that there is a distinct tendency downward in American homes to-day. Our modern life and civilization makes care most necessary to maintain the same high standards in our home life that our fathers had. This was once an agricultural nation, and the business of farming is tied up with the farm home. In the early days, and to some extent still, the farm people, who were a large part of the population, spent the long evenings reading gathered about the family hearth, or more correctly speaking, around the "settin' " room table. Most of the amusements were in the form of games played in the home among members of the same family or in the social affairs of the neighborhood, usually in some neighbor's home. During the day, when not in school, the children were either in the presence of the mother in the house, or the older ones were associated most of the day with father in the farm work.

Especially important was the practical training that girls of former generations received in home making. Every kitchen was a laboratory where the girl, with the efficient mother as the teacher, learned to bake and sew and to care for a home and for the younger children.

An Idea that Should be Carried On

Best of all, the girl was constantly taught the idea that the greatest profession or career that she could possibly have was to help create another home in which she would be the moving spirit. But times change, and it is right that they should, if we prepare ourselves not only to enjoy the good things that come with progress, but to meet adequately its evils also.

In the majority of American families to-day the father is separated from his children all day, often leaving so early in the morning and returning so late at night that there is little opportunity for the mutual good that such association between father and children brings. More and more, even in the country, are the evenings spent outside of the home, not in the home of some neighbor, but with the automobile, at the motion pictures, or in some other form of amusement.

Particularly unfortunate, as I view it, is the fact that our girls are being educated away from the home. Too often now the modern mother washes the dishes herself while the daughter entertains company in the parlor. Thousands of young women come to the marriage altar with little or no practical knowledge of the essential things they should know.

The world demands of the young husband that he have money or trade or profession with which to support a family, but the world asks nothing of the bride in the way of training for the more important task of caring for that family. Is it any wonder that the courts are filled with divorces, when the young bride, educated all of her life with the thought that home making was not a profession or even a trade, but a menial task, and that a "career" was much more important, comes to her great responsibility trained neither materially nor spiritually to meet it?

How many, many times the young woman who was so set upon a career in her youth realizes with great bitterness, when too late, that she accepted the career in place of the greatest profession of all the world, and had indeed sold her birthright for a mess of pottage.

Some one has made the statement, somewhat exaggerated, that the dream of many modern young wives is to live in a 2 x 4 apartment over a delicatessen store with very handy transportation to the department stores and theaters. Contrast this, if you will, with the real home makers of past generations and you will agree, I think, that while there are millions of well managed, happy homes with high ideals, yet there are enough of the other kind, and their number is increasing, to give all thinking people grave concern.

The Factor of the Woman in Business

Another factor which modern life has brought about, is the millions of unmarried young women who are helping to do the world's work outside of the home, whose competition prevents millions of men from marrying, or at least makes an excuse for them not to marry. Most of these girls would marry if they got the right chance, but until the chance comes, if it ever does, most of them must earn their own living, although in doing so they are les-

(*Continued on page* 345)

KNOW YOUR LEADERS

Sometime ago we published a picture of farm leaders and offered prizes for the largest list of correct names of the men in the picture. A very few were able to name only a part of the group. The woman claim they can do better. Here is a picture of the leaders of Home Bureau work in New York State. To the person (not related to any in the group) who names the largest number of these women correctly, the New York State Federation of Home Bureaus will pay a prize of $5. The second largest list will receive a prize of $3, the third largest $2. Where there is a tie, those involved will each receive the amount tied for.

The contest closes May 15

American Agriculturist

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Volume 111 **For the Week Ending April 14, 1923** **Number 15**

The Passing of A Great Farm Industry

Hops Combined Speculation and Romance—Growers Glad To See Them Go

By RAY F. POLLARD

HOPS are on their last legs, or rather, on their last poles. In 1899 and 1909, Schoharie County had more acres of hops per square mile than any other county in New York State. Daily I now see deserted hop houses, stacks of idle poles, and hear stories in hop vernacular of the good old days. This county stuck to hops to the last and is still staying with 100 acres or less. Our German and Dutch blood makes us so perverse that we stayed strong in hops when nearly every other county in New York State saw the storm of competition, disease and prohibition coming and got out from under.

The First Planting

History records that the first yard was set by J. D. Coolidge at Madison, N. Y. in 1808. Growth was slow, however, and by 1840 there were hardly more than 2,000 acres of hops in the United States, of which two-thirds were in pious New England and the rest in New York State. By 1859 there were produced in the country 55,000 bales representing one-third as many acres, seven-eighths of them in New York State, with Vermont the only New England State to stay in the game.

Hop growing was contagious in New York. Sooner or later practically every county was exposed and by 1879 there were 39,072 acres of this crop in the State. At this same date Wisconsin had 4,439 acres and California was a poor third with 1,119 acres.

The Use of Hops

It has been stated on good authority that the manufacture of beer and ale required 95 per cent of the hop crop of the world. The same authority estimated that there were 264,500 acres of hops raised annually at the close of the nineteenth century. Assuming the average yield to be 650 pounds per acre, we find a world production of 171,925,000 pounds. Now take 95 per cent of this for the amount used in beer and ale, allow one and one-half pounds of hops to a barrel of beer, consider 250 "boot-legs" to the barrel, and we find that hops entered into 27,221,458,333 drinks for a beer-thirsty world.

There is no disputing the fact that hops and beer were two good cronies, neither happy or prosperous without the other. Other reasons besides the Volstead Act will be given for the fall of hops in New York State later in this article.

The remaining five per cent of hops were used for medicine, for decoctions, in yeast making, and even in the manufacture of Bohemian glass. The roots were sometimes used as a substitute for sarsaparilla; the tender shoots were sometimes eaten like asparagus; the vine was said to make good paper pulp and even cloth, and if pressed fresh into stacks, would make ensilage.

The peak of the world's hop acreage is said to have been reached in 1894 when there were 272,865 acres and at the same time 63,777 acres in the United States according to the best estimates.

Hop picking time was something of a holiday in the heyday of the industry

The peak of prices occurred in December, 1882, when hops were quoted in New York at $1.13 per pound. That was the time when growers held for $1.25 and $2, and one man swore in half sincerity that he would get a cent apiece for his hops. Most of them got left. Last summer I visited the farm of a ruined hop grower, fields neglected and buildings falling down. He held 10,000 lbs. for $1.25; later he used them to bed his livestock and fertilize the land. Another man was offered one dollar a pound and finally took ten cents. But the climax of foolishness was reached when a grower who couldn't get $1.25 a pound, took his crop and scattered it on the public highway.

A Problem of To-Day as Well

Following high prices came an increased acreage with the result that the price was exceedingly low three years later in 1885. How many times have farmers had this lesson demonstrated with other crops like potatoes, and how many centuries will it be before a few of them commence to heed it?

The lowest recorded price for new hops was six cents per pound in August of 1879. Some farmers have said that in the days when labor was 75 cents per day and brimstone three-quarters of a cent a pound, they could produce hops for ten cents, but by no economy could they produce for six cents. New York's decline started soon after 1879, and we must look back as far as that to find at least one cause. At that time Wisconsin had 4,439 acres and in the decade following, California, Oregon, and Washington came rapidly in with their thousands of acres. It was this competition from the Pacific coast where climate, soil and conditions were exceedingly favorable that first sounded the doom of New York's monopoly.

Insects and disease invaded New York first and even after reaching Washington and Oregon in 1888 and 1889 were not so destructive there as here. The "blue mold" or hop mildew, a fungous disease was probably the most destructive agent. Dusting the vines repeatedly with powdered sulphur was found to be effective and thousands of barrels were used for the purpose.

Insects Liked Hops

Of the insects the plant louse, said to cause "black mold" was most dreaded. This horde of suckers were combated by the use of kerosene emulsion and in later years by nicotine sprays. The hop grub injured the roots and tender sprouts, caterpillars fed on the leaves, as did the thrips and flea beetles. The "hop merchants" were most interesting chrysalids of two common butterflies. The superstition held among hop growers to the effect that when the gold spotted ones were plentiful the crop would be good, while if the silver spotted ones were plentiful and the gold spotted ones were scarce, the price would be low.

A Forerunner of the 18th Amendment

Local option had considerable to do with hop growing. As soon as they were given the right by law to prohibit the public sale of intoxicating liquors, many towns did so and remained "dry" from that time to this. A whack on beer produced a sympathetic black eye on hops.

Another cause of diminution in New York was the fact that there were hundreds of little growers with small "yards" on poor, hilly lands where comparative failure was rather quick and sure.

But the final knock-out blow was given by the 18th Amendment. The referee has been counting for several years now and is likely to count until he wears himself out before the one-time champion "the hop industry" with "beer" for his backer, will show any signs of life.

Hop picking time was the social event of the season in many localities. The old and

(*Continued on page* 347)

Editorial Page of the American Agriculturist

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Sapiro versus Carver

TWO men of much training, ability and experience are attracting national attention by their emphatic and wide-spread views upon the economics of agriculture, and especially by their radically different opinions as to the value of cooperation to the farmer.

Mr. Aaron Sapiro is America's most enthusiastic believer in cooperation. He travels up and down the land and by his great ability as a speaker and with an unlimited enthusiasm, he has started many sections and hundreds of communities in immense cooperative projects. He is a sincere apostle of a great cause, but because of his enthusiasm, too often, farmers are led to start their cooperative enterprises with too much hope that cooperation is immediately going to revolutionize their business and bring them prosperity.

If Mr. Sapiro could stay and continue to inject his wonderful personality and leadership into the organization, many of the things that he promises through cooperative effort would probably come true; but unfortunately, leaders with Sapiro's enthusiasm and ability are rare and after a time when the cooperative finds trouble along its way and fails to make good on the too great hopes upon which it was founded, its members become discouraged and critical. They forget the smaller and conservative results which it is really accomplishing and too often it goes the way of those hundreds of other enterprises, built too much on hope and not enough on sound business principle.

On the other hand, Professor Thomas N. Carver the Economist of Harvard is probably too conservative in his views of what can be done by cooperation. Mr. Sapiro and Professor Carver spoke recently from the same platform during Farmers' Week in Ohio. The Cleveland Plain Dealer said that Professor Carver "threw buckets and buckets of cold water" on the glowing enthusiasms aroused by Sapiro's remarkable address earlier in the week.

Carver said that cooperation will help clear special crops from regions that go strong on them, but will never touch nor alter the immense established markets for such staples as wheat and cotton. "Cooperation like everything else needs a self-renewing motive. Enthusiasm dies out, but the desire for money never dies out. If an organization can make money, that perpetuates itself. If there is any money in cooperation, I am for it; if not, I don't take much interest in it."

Somewhere between the too enthusiastic Sapiro view and the too conservative Carver view on cooperation lies the "middle of the road." Organization of farmers will never bring any panacea. No farmer will get rich by it. But if it is founded upon good business methods and led by capable and honest men, farmers can hope to get by cooperation their just share of the true market returns for their products.

Lord Robert Cecil and the League of Nations

LORD ROBERT CECIL, England's chief exponent of the League of Nations, is visiting America to tell our people why he believes in the League, and to secure from them in return suggestions and criticisms which will help to perfect a great world organization, formed for the purpose of preventing war.

A dinner and reception were given to Lord Robert in New York City, where he made his opening speech in explanation of the League of Nations and answered questions in regard to it. This dinner was attended by bankers, lawyers, business men, clergymen, journalists and leaders of all sorts who gave the great English apostle of world peace the very closest of attention. Lord Robert was introduced by James G. McDonald who recently wrote the feature article in American Agriculturist, describing better than we have seen it anywhere else, the situation that exists in the Ruhr Valley in the present conflict between Germany and France. Because Lord Robert Cecil's speech is the clearest and best presentation of the principles upon which the League of Nations is founded, and because we believe our farm people are intensely interested in the great problem of preventing war, we expect to print as a feature article in our next issue much of what Lord Robert said.

More and more is it being brought home to all of us, as we struggle so hard to rectify what the war did, that some way or other we must do something to prevent war. There is no use to struggle forward for a century to make a little advance in civilization to have it all swept away by unnecessary conflicts between the nations. Maybe the League of Nations is not the way, but so far no one has come forward with a better plan. Perhaps if we cannot agree with all of the details of the League as explained by Lord Robert, we can, because of the great need, unite on the fundamental principles if they will prevent other catastrophes such as that started by Kaiser Wilhelm in 1914.

Farmers' Hours

IN an article entitled, "The Farmer and the Factory Hand" in the February issue of the "Atlantic Monthly," Arthur Pound has some interesting remarks on the hours that farmers work.

He says that farmers think because they start the day early and finish it late that they work more hours than any other class of workers. In their calculations, according to Mr. Pound, they fail to allow for the time between spells during the day that they don't work. To prove his point, Mr. Pound asked a farmer about farmers' hours, who answered him as follows:

"It depends upon how much land the man has and what kind of a wife, and how much stock, etc. You can't lay down a rule that holds for all alike. But mine's about an average layout, and I put in—just figure it up for yourself—say two weeks at fourteen hours a day, and two more at twelve. Then two months at ten hours a day. That accounts for the three busy seasons, planting, haying and harvesting, and some over. Allow two months at eight hours and two more at six. There's more than seven months gone and winter left. Gosh, a fellow don't really put in more than four hours a day in winter choring around, if he really works at it. Of course, with nothing much to do, and plenty of time to do it in, he lays around and lingers on the job a good deal. Sundays the year around would rate about the same, four hours each. Then to play safe, better allow 100 hours for chopping winter firewood and 100 for repairing tools and buildings and odds and ends."

Mr. Pound goes on to say, "that averages just a little over seven hours a day the year around. The city man who works eight hours a day the year around, all but Sundays, comes close to matching the farmer."

The article as a whole speaks very kindly of farmers and perhaps the remarks about the actual hours that the farmer works is not far from right, although in these short help times, the farmer with a large dairy puts in a pretty full day in winter as well as in summer.

But what Mr. Pound fails to take into consideration is the fact that when the city man gets through with his job, he can forget it, while the farmer actually has responsibility for his work from the time he gets up in the morning until he goes to bed. Even when he has a holiday off, he must cut it short to "hurry home to milk the cows."

This whole question of the farmer's hours is a very interesting one and worth some discussion. How many hours do you actually work in the course of a year? How do your hours vary during the year? What kind of farming do you do? Have you ever considered methods for better regulation of your work to give you the same or better results and more freedom?

Getting Rid of a Load of Hay

"YESTERDAY," said a farmer recently to a friend, "I took a load of hay to town and got rid of it."

In that expression, the farmer unconsciously showed one big reason why farmers get so little for their products. His whole psychology toward that load of hay and its sale was entirely wrong. With him the hay was something of little value to get rid of, instead of a possession much to be desired, to be parted from only when properly sold.

The idea is general on the part of both farmers and dealers that the dealer confers a great favor on the farmer for taking the farmer's products off his hands at any old price, but you can bet the farmer is not made to feel that he is conferring any favor on the dealer when he buys his farm equipment and supplies. It is an absurd situation that the farmer takes for most of his products the prices that the other fellow is willing to give, and pays for his supplies the price that the other fellow names, but for this situation, farmers themselves are chiefly to blame. How can we expect others to value what we hold of little account?

Products which the farmer raise are the most desirable and most necessary in the world. If it were not for these products, the world would starve. The first step in marketing is to recognize the value of and have some confidence in what we have for sale.

"All great nations fail when their agriculture fails."—THEODORE ROOSEVELT.

"What Hath God Wrought?"

Radio—The Latest Phenomenon for Reducing The Curse of Farm Isolation

I HAVE often thought what fun it would be to bring a Yankee farmer who lived, say one-hundred years ago, back to earth and take a four weeks' vacation to show him the sights. We who are privileged to live in this age are so used to the thousands of inventions which help to make modern life of interest and worth while that we do not realize what a most wonderful age it is. But you can be assured that our farmer, brought to life again after a brief hundred years' rest, would think that he had either gone crazy, or that all moderns had. Can you imagine his face, for instance, when he saw for the first time a railroad locomotive and train, or when you tried to get him to ride on one of the strange contraptions? Bear in mind that it was less than one-hundred years ago when the first locomotive made its trial run. What would he think when we showed him the modern city with its great buildings, its manufactories, department stores, and all the electrical devices that have come since Benjamin Franklin sent up his kite with a key attached?

What would the Yankee farmer say, too, when we took him to the farm and showed him the grain binder, the milking machine, the automobile, the rural-mail delivery, the telephone, and the hundred other mechanical devices that have changed farming from the menial drudgery and lonesome isolation of his day to the interesting and worth-while business of ours? Comparatively speaking, it is only a short time since 1844 when Samuel Morse, ticked that first message by telegraph, "What hath God Wrought?" which marked the beginning of a new day in long-distance communication.

"What hath God Wrought?"—Those are the words and the sentiment that come to me to-night as this talk is broadcast into the air and carried by radio to thousands of my friends whose farm homes dot the hills and valleys of what was, before the day of modern invention, a lonesome and isolated countryside.

With the possible exception of poverty, the greatest curse of farm life has been isolation. The bitter tears of loneliness that have been shed by farm women shut off by bad roads and long winters from nearly all social intercourse with the outside world, have been nothing less than tragedy. Isolation also is largely to blame for the fact that the farmer, while a good producer, has been a poor seller. Until recently he has had no means of knowing market conditions nor how to meet them, and his isolation has made it difficult to cooperate with his neighbor. The R. F. D., the automobile, good roads, the telephone and now this last great invention, the radio, are bringing about a new day in the farmer's social and economic life, and are bringing to country homes nearly all of the advantages of social and economic intercourse that city folks have, with few of the disadvantages of city life.

The radio is just in its infancy, but it is already developed far enough to give promise of doing more even than anything else, which we yet have to reduce the farmer's isolation, to put him in daily touch with his markets and with all important news, and to bring to him all that is best in art, literature and music of the present day.

Our Radio Service

ON Wednesday, April 11, at 7:30 P. M., the address given on this page by E. R. Eastman, editor of American Agriculturist, was broadcast by radio from the WEAF station of the American Telephone and Telegraph Company. Whether you own a radio or not, you probably will sometime own one, and you will be interested in Mr. Eastman's outline of the special radio service which the American Agriculturist is furnishing to farmers through the cooperation of the American Telephone Company.

We are especially interested to have your written suggestions for making the radio of more service to farmers. Therefore, if you have a radio, will you cooperate by answering the questions suggested by Mr. Eastman on this page; and if you do not own a radio, will you call these questions to the attention of some friend who does have one? The time is coming when you will use this great invention as much as you do the telephone now, or more, and in this development that is sure to come, you can have an important part in making it especially useful to farmers by cooperating with us and the broadcasting station in developing a real farm-radio service.

Because Henry Morgenthau, Jr., the publisher of the American Agriculturist, and I believe this so thoroughly, and because we can see the radio has even greater possibilities for farm people, because of their situation and business than anyone else, we have arranged to cooperate for a time at least with the American Telephone and Telegraph Company, through this station, WEAF, to give you a special farmer's radio service, and try to find out from you how this means of communication can be made of the most value to you. This is the first effort that has been made in New York State to give farmers a service of this kind.

The American Agriculturist radio program will include the broadcasting of the latest news of greatest interest to farmers, this news to be written and interpreted entirely from the farmer's standpoint.

For instance, Lord Robert Cecil, England's best exponent of the League of Nations, is visiting America to tell our people why he believes in the League, and to secure from them in return suggestions and criticisms which will help to perfect a great world organization, formed for the purpose of preventing war. Lord Robert's speech is the clearest and the best presentation of the principles upon which the League of Nations is founded. Farm people are intensely interested in the great problem of preventing war; therefore, I think it the duty of a farm paper and of the radio broadcasting stations to explain and emphasize such important news topics as Lord Robert's visit, and to explain what the principles he advocates might mean to farm people and to the world in general. Perhaps if we cannot agree with all of the details of the League, we can unite on the fundamental principles that will help to prevent other catastrophes such as that started by Kaiser Wilhelm in 1914.

This afternoon at Albany, a great hearing was held by the Joint Educational Committee in the Legislature on the Rural School Bill, which contains the suggestions of the Committee of Twenty-one. This committee has been working for three years to get suggestions for improvement of our rural schools. Whether or not this bill will pass this year is problematical, but because of the great need of the country children for the application of the main principle in this bill, it is very sure to pass this year or next.

The San Jose Scale, a pest which attacks apple and other fruit trees, is again becoming rampant in eastern orchards. A few years ago this scale became a serious menace to the fruit producing business. Thorough spraying with lime sulphur solution held it in check. Such spraying should again be resumed and it is now time to do it. I mention these three different items, general news about the League of Nations, the farm news on the Rural School Bill and the San Jose Scale, to illustrate what I mean of using the farm press and the radio to express and interpret the news from the farmer's standpoint.

Would such a service be valuable to you? Our suggested agricultural radio program for the coming weeks also includes short addresses every Wednesday evening at 7:30, by some of the greatest farm leaders in the United States. The first of these will be an address by Professor George F. Warren of the New York State

(*Continued on page* 338)

Radio Questionnaire

1. Have you a radio receiving set? Yes..... No.....
2. If so is it (1) A Crystal Set..... (2) A Vacuum Tube Set.....
3. How many sets in your immediate vicinity?.....
4. What radio broadcasting stations do you hear?

   1..... 4..... 7.....

   2..... 5..... 8.....

   3..... 6..... 9.....
5. What day of the week and what time of the day or evening is the very best time for broadcasting farm news, market and weather reports?.....
6. How many ordinarily listen in?.....
7. Residence: City..... Town.....
8. Have you a telephone?.....
9. Is your house wired for electric lights?.....
10. How many in the family: Adults Male..... Boys..... Children Female..... Girls.....
11. Do you own an automobile.....piano.....player piano..... phonograph..... other musical instruments.....
12. Are you interested in baseball..... swimming..... boating..... camping..... photography..... hunting..... fishing..... other sports.....
13. Periodicals or magazines read: 1..... 2..... 4..... 3..... 5.....
14. Do you patronize the Public Library..... circulating Library.....
15. Upon what particular subjects would you like to hear interesting, instructive or entertaining talks?.....

.....

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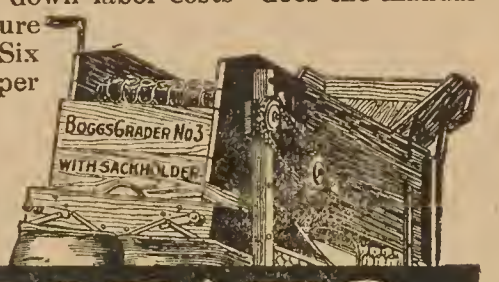

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As I View Long Island

Last Week, Its Farming—This Week, Its Farmers

By J. VAN WAGENEN, JR.

I LIKE the enthusiastic local pride and patriotism which leads the Long Islander to call his land the "Blessed Isle," and the man from Suffolk County (stretching as it does more than a hundred miles east of any other part of our State) to christen it "The Sunrise County." We do well when we learn to call the Home Spot "God's Country." Long Island is quite a patch of land, anyway. It is about 130 miles from the old Brooklyn Bridge to the tip of "Montauk's eastward-pointing finger," and it is about 30 miles across at the widest point. At the western end is a roaring city of docks, factories and closely built streets of old Brooklyn. Then eastward is the communter's zone. This is the region which every morning sends a swirling flood of humanity through the tube and over the bridges and on the ferries into New York City, and every evening sucks them back again to itself. Long ago Brooklyn was called not only "The City of Churches," but the "Bedroom of New York" as well. Then up on the "North Shore" and in the Wheatly Hills region and way out around Southampton—the "Newport of Long Island"—are the imposing estates—the homes, or, more correctly, the occasional, sojourning places of the very rich.

J. VAN WAGENEN, JR.

The Indian Still Remains

AT the eastern end is the Shinnecock Indian Reservation, where a pitiful remnant of the Shinnecock tribe still holds the land. The Reservation, if it could be opened up, would be exceedingly valuable, and white men have long coveted this particular domain, but after many efforts to dispossess him, Poor Lo still maintains his ancient sovereignty. I am glad, because it shows that whatever injustices were committed in the past, the State now means to deal fairly with its Indian wards.

Of course, an island like this, with its long coast line, can never be without something of the romance and the flavor of the sea. Sag Harbor, out toward the eastern end, once rivaled New Bedford as a whaling port, and her hardy captains sailed outward bound on cruises that were expected to be full three years long, and no waters were too remote and no climes too rigorous for these sturdy adventurers of the seas. Those were proud and palmy days such as can never be again, for one August day in 1859, at Titusville, Pa., a man drilling for salt opened a leaping fountain of oil. It was the beginning of the end of the whaler's day, and now a once great and prosperous industry lives only in the halcyon memories of ancient, grizzled men haunting rotting wharfs and rehearsing yet once again to each other the epic stories of those noble years. These gray beards are the last of the most undaunted breed of men that ever went down to the sea in ships.

A Sea Coast Country

A SEA coast country is always a well-fed lot of folk, for there are cod and sea bass out in the open main and flounders and weakfish in the bays, and oysters in the inlets, and clams on every protected beach, and, best of all, there are scallops in Great Peconic Bay, and these are a delicacy so delectable that to eat of them fresh from the water that morning, and fried in deep fat to a golden brown—this is to know the last and the best that Epicurus ever dreamed.

I believe it was Alexander Pope who wrote that "the proper study for Mankind is Man," and I have always found that the most interesting feature of any locality is not the soils, or crops, or climate, or agricultural methods, but rather the farm people themselves. Now, when you come to speak of the Native Sons of the Island, you need make no apologies. Perhaps it is not generally realized that the oldest English-speaking settlement in New York State was on Long Island, made by Connecticut Yankees who migrated across the Sound about 1640, coming first to Southold, on the North Shore, but soon setting up their homes at Southampton, on the other side of the Island. These early settlers were, of course, of purest English blood, and they brought with them the Puritans' stern code of morals and the Puritans' meeting house, which in due time became the Congregational church. Most of the old families send their ancestral roots back to this fine stock.

Famous "Sound Avenue"

SOUND AVENUE is the name of a region rather than a place, but I judge the community center is north of Riverhead, around the Grange Hall, and the beautiful country church and the very modern rural schoolhouse. Sound Avenue is also the name of a long, beckoning road which follows the north side of the Island for many miles, keeping about a mile from the water front, and all the farmsteads are on this road, and all the farms run back to the waters of the Sound—at this point so wide that Connecticut is little more than a blur on the horizon. Once these farms were large, but as it became necessary to provide a heritage for the numerous sons who would farm, they have been much subdivided. After all, large acreage is less important than in most sections, because 40 acres is a lot of land when devoted to intensive crops, and is really a bigger farming proposition than 200 acres devoted to general farming. The old plan of letting every farm run back to salt water still prevails, so that there are some singularly long, narrow, shoe-string farms. This has resulted in a country road which, on the north side at least, is more like a scattered village street. So, too, a dense rural population and a prosperous agriculture has permitted the development of a splendid type of rural civilization. For example, it is quite unusual to find a large pipe-organ in an open country church, but there is one in the Sound Avenue Church, and it is good to know that, unlike many country churches, they have retained the same pastor through many years.

Typifies Rural Life at its Best

SOUND AVENUE has long stood out in my thought as typifying rural life at its best—an ancient, pure American community, with fine traditions—agriculturally prosperous, so that their children have gone away to school and college, and they themselves have maintained contact with the world through books and travel.

I had expected that some day the ever-widening zone of suburban New York would engulf them and drive them from their pleasant farms. As a matter of fact, the city influence never seems to have greatly influenced the eastern portion of the northern shore.

Social disaster threatens Sound Avenue, but not from this source. Rather it is the coming of the Pole, who is establishing himself on these old farms in large numbers. He is doing it very simply and directly by purchasing the land at high prices. For the first time in its history, Sound Avenue must propound this farreaching question, "Shall the agricultural civilization of this community be the civilization of the Puritan, or the civilization of the Slav?" I hope—oh, I hope—that somehow the Yankee will find ways to hold the fort. Understand me, agriculture, as measured in terms of production, will not suffer. What the emigrant lacks in book knowledge and hereditary skill he amply atones for by his willingness to accept a low standard of living and his ability to work himself and his women folks and his young children pitilessly without regard to the calendar or hours. Hewers of wood and drawers of water they may be, but no man can compete against them. It is not potatoes and cauliflower—it is

our ethical and cultural standards that are at stake.

It has been my good fortune at various times to come to know, in a rather intimate way, some members of the Society of Friends, and I admire them and their philosophy more than I can well tell. I remember how, at Mineola, I once met a gentle-voiced, cultured Friend who spoke of his history and told me of his problems. Quietly, unemotionally, as one who states a simple truth, he said: "For two hundred years and more my people have lived on this farm, and on it we have found happiness and satisfaction and content —but the end comes. The ever-spreading city has practically surrounded and submerged me. On every side is a civilization and standards and culture that has no understanding of or sympathy with me or mine. The real estate men are impatiently clamoring for my land, and they call me 'fool' because I still hold these open fields. The great estates covet my acreage. I could sell tomorrow for a thousand dollars for every acre—perhaps more. 'I have kept the faith,' but my boy will never till these fields as his fathers did, and the end comes quickly. I do not know what I ought to do."

I answered him: "Sir, I salute you. You are the last of a line of kings."

Thus through all the turmoil of our modern civilization, the Mills of the Gods grind — sometimes good — sometimes ill.

THE ORIGIN AND DEVELOPMENT OF GRIMM ALFALFA

A. L. BIBBINS

For years farmers of Carver County, Minnesota, had attempted to grow alfalfa, but were unable to make it last through the winter. Wendlyn Grimm, an old German farmer of that county, observed a few plants that survived the normal winter conditions. Mr. Grimm selected seed from these plants and started the propagation of the variety that bears his name and which has brought millions of dollars to farmers in North America.

It required 10 years to produce the first eight bushels of seed. His neighbors were trying out the variety in small amounts and found that it was especially hardy and could be depended upon to produce good crops of hay. Farmers in the region of Fargo, North Dakota, where previously it has been impossible to grow alfalfa successfully, were soon receiving the same results as experienced by the Carver County men. Soon it spread into South Dakota and the hill lands of Idaho. It is now grown for seed in Kansas, Nebraska and Colorado.

It has taken a great many years to prove the value of Grimm alfalfa. Farmers of the northwest are well convinced on this point and a great many leading men of Wisconsin, Michigan and New York, have proved the superiority of Grimm over common. Unfortunately many have failed from the use of so-called Grimm. These failures have discouraged the growing of Grimm as well as the growing of alfalfa in some sections, but to-day farmers are finding that when they get the real Grimm that the battle is more than half won. This means a great deal to our agriculture. In Michigan the acreage has increased from 78,000 to over 500,000 in the last four years largely due to the use of reliable Grimm seed.

This year there is more than usual interest in alfalfa in New York, resulting in considerable demand for Grimm. A temptation on the part of some western farmers as well as some seedsmen to misrepresent their alfalfa has placed upon the market a great deal more seed in the name of Grimm than is actually produced. That has been the experience of western farmers and seedsmen for a long time. Such a condition is deplorable, but must be met by the eastern farmers insisting upon the fullest facts and knowledge concerning the seed that he is using. Through the process of field inspection and obtaining the seed at the production points, it is possible to purchase Grimm seed that comes from the original seed and is free from all mixtures and adulterations of common. That is the kind of seed that is making alfalfa growing more desirable, especially in those territories where the stands are subject to hard winter and spring conditions.

General Motors Trucks

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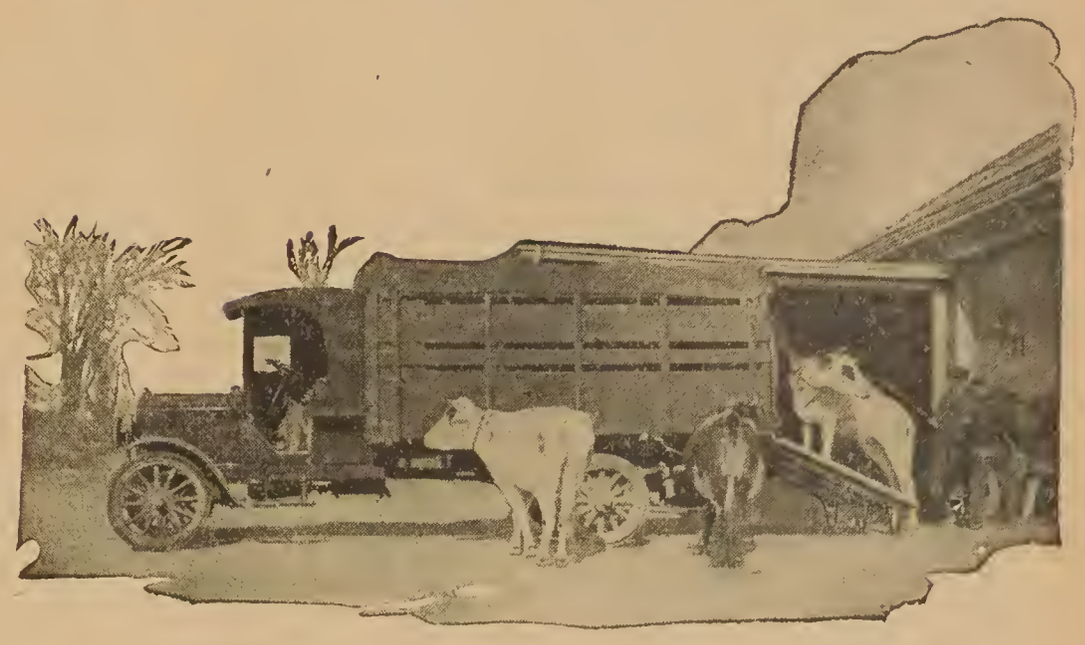

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GENERAL MOTORS TRUCK COMPANY—*Pontiac, Michigan*
Division of General Motors Corporation

GMC Truck Chassis list at the Factory as Follows: 1-Ton, $1295; 2-Ton, $2375; 3½-Ton, $3600; 5-Ton, $3950. Tax to be added.

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By *Henry Morgenthau*

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In the Garden Vineyard

Varieties and Cultural Practices for the Small Grower

By L. G. YOUNGS

THE first consideration in planting a garden vineyard is that of varieties, so that the wants of the household may be satisfied. A garden vineyard is of little service if the varieties are such that the fruit ripens all at one time. The sorts must be selected so that they will cover the entire season. Under our conditions in the Lake Erie section, we can make plantings for early fruiting varieties from the Red Moyer, Moore's Early, Black Worden, Diamond or Lady Washington, while Concord, Delaware and Niagara come for the middle of the season. Catawba, Agawam or some of Rodger's Hybrids will round out the season as good late sorts.

This list is merely suggestive, and there are many others in favor. While some have merit, there is not one in 20 of the new varieties being introduced which shows improvement over our present list. However, the amateur grape grower can satisfy his curiosity by experimenting, and, if done in a small way, the expense will be insignificant. If the garden vineyardist will make the bulk of his plantings of tested varieties he will be quite sure of average, moderate success in his work. If the locality is subject to severe frost, it is advisable to locate the vineyard on the highest available ground on the farm, as frost will be less liable to cause damage, and grapes seem to naturally thrive best on high levels.

A favored spot in the garden when the purple bunches hang thick

It has been my experience that the best grade one-year vines are preferable, and commercial grape men seem to make this preference. Some growers are not willing to wait, and hope to hasten the fruiting of their varieties by purchasing two-year vines. It has been our experience that the one-year vines, when purchased, should be cut back to an 8 or a 10-inch root and trimmed to two buds. Growth can be hastened by use of a commercial fertilizer applied after the roots have been well covered with soil. The earth prevents any burning action of the fertilizer.

It is best to plant the garden vineyard on much the same lines as the large vineyard. The 10 x 10-foot and 9 x 9-foot spacing of vineyards is now obsolete, and spacing of 9 x 8, 9 x 7, or 9 x 6 feet is followed mostly for the strong growing varieties like the Concord. A few vineyardists out here follow the 8-foot spacing of the rows for the Delaware and weaker growing varieties, but the method is not satisfactory either for hauling out the grapes or for plowing and cultivating.

Setting out the Vines

THERE is a tendency right now toward closer planting in the setting of vineyards, but as less wood is put up, the aggregate of buds is about the same per acre. Vineyardists formerly desired the vines to have 45 to 60 or more buds, but now 25 to 35 buds is generally the rule. The decrease in buds gives larger berries and better shouldered fruit.

There are various systems of training vines, the general purpose of all of which is the renewal of the fruiting wood. The one big fact which the garden vineyardists should grasp is that the grapes are not grown on old wood, but on wood of the previous season's growth. The first season for planting we cut back the vines to three buds, and from the three canes which grow we save the two best ones to carry to the trellis. The support, or trellis, is made by setting stakes at a distance of three vines apart. A post and brace is used at either end of the vineyard row, and the stakes at every three vines are wired to them.

If the growth of the vines is not satisfactory at the end of the second year after planting, the wood is cut back in the same way as in the first year after planting, and this process may be followed throughout the vineyard until satisfactory. In most cases we bring two canes up to the bottom wire and tie them at right angles along the bottom wire, or else they are carried to the top wire and tied along that. We use a No. 20 vine wire in tying the canes on the top wire. The tie on the bottom wire is made with a 4-ply twine and is loose enough so that the cane will not girdle.

A Danger in Tying

WE have found that when wire is used to make the tying upon the bottom wire, the cane is often girdled, and so we have discontinued that practice. Some growers in our section only bring up one cane at first to either the bottom or to the top wires.

In the arm system, the cane is trained to two arms on the bottom wire at right angles to the main cane. Three to five laterals are brought up from the arms and tied to the top wire for the fruiting wood. Under the Kniffen system as formerly practiced, two laterals were trained over the bottom wire and two over the top wire at right angles to the parent cane. The modification of this system is to carry the vine to the top wire and tie the fruit wood down to the bottom wire. We have found that when this system is followed there will be less trouble from the wind blowing down the canes from the trellis.

A word about the trellis: The first wire of this is stapled to the post and spaced 30 to 36 inches from the ground. The second, or top wire, is stapled 24 inches above the bottom wire. A few vineyardists have used a third wire, but it has been very generally discontinued in recent plantings.

Spraying

GRAPES need to be sprayed when rot, mildew or anthracnose are prevalent, with Bordeaux mixture, applied at the rate of 100 gallons to the acre. This is put on immediately after the grapes have blossomed. In fact, it is well to spray at this time, as a general insurance against fungous troubles. If the grape root-worm or the grape berry-moth are present, add five or six pounds arsenate of lead to the Bordeaux mixture, and repeat the spraying in two weeks.

If thrip or leaf hopper are in the vineyard, it is best to use a nicotine spray to control them. This may be combined with the arsenate of lead. The nozzles of the spray rod should be so that the fine spray is thrown upward upon the underside of the leaves. Fine holes in the nozzles give best results, particularly when combating the thrip, for nicotine is a contact spray and should be applied as a mist to prevent the pest.

TREATING OATS FOR SMUT

In last week's issue there appeared a stenographic error on page 309 in the recommendations for diluting formaldehyde in the treatment of oats for smut. Instead of [illegible] quart of formaldehyde in 40 [illegible] of water, the directions should [illegible] *one pound* of formaldehyde [illegible] gallons of water. After the seed has been run through the machine [illegible] smut balls and light grain are piled on a tight, clean floor and sprinkled with the diluted formaldehyde. The pile is turned [illegible] times during the [illegible] kernel is moistened.

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Legumes for Acid Soils

Some Do Well, Nothing Beats Lime and Red Clover

By HERBERT R. COX

THE high price of lime in the past few years has led to some discussion of the subject of acid soil legumes; but as Mark Twain said of the weather, not much has been done about it. Moreover, with the gradual lowering in the cost of lime it is probable that the old stand-bys, red clover and alfalfa, will continue to hold their own.

It is interesting, however, to inquire briefly into this question of acid soil legumes, that is, leguminous plants which thrive on a soil which has an acid reaction and which has not been limed for years. I wish to make this last statement entirely clear, since experiments have recently shown that red clover will thrive in a soil showing somewhat of an acid reaction but which has been recently limed; even though the lime requirement has not been satisfied, red clover will thrive if there is "free lime" in the soil. Experiments at the New Jersey Station on a soil with a lime requirement of 2,000 pounds of ground limestone, showed that through a period of years for all the crops in the rotation, practically as large yields were obtained with 1,000 pounds of ground limestone as with 2,000 pounds. It is probable that on most soils 2,000 pounds of ground limestone, or its equivalent in other forms of lime, is amply sufficient for success with red clover. Even at present prices for lime this would not involve a very large cash expenditure.

Further, there is no legume which fits into the general northern rotation as satisfactorily as red clover. It would seem that it is worth spending a little extra money to insure success with this time-honored legume. Alsike will, of course, do better than red clover on land of medium acidity which has not been recently limed, but no one questions the superiority of red clover where the two grow equally well. Still, alsike has won a place for itself on account of its acid resistance, and where the soil has not been recently limed it is highly desirable to include it in the mixture to displace, partly or wholly, the red clover.

Getting away from the strictly northern rotation, we find certain legumes which are more or less acid resistant, some of which are valuable, others worthy of trial in certain localities, and still others of very doubtful value. We regard cowpeas as being somewhat acid resistant. This crop has found a place in southern New Jersey primarily for soil improvement. It will often make a satisfactory growth on land that is fairly low in productivity and which has not been limed for many years.

Lespedeza is an annual plant which is distinctly acid resistant and which seems to give some promise for South Jersey and localities further south. Its place in South Jersey is as a pasture crop and a soil improvement crop. Besides the common Japan clover we are trying out a related species known as Korean lespedeza. The latter is a shorter season plant than the former and, from a limited experience of one year, it looks more promising than the former. Dr. A. J. Pieters of the U. S. Department of Agriculture suggests that the two species be seeded in combination to lengthen the pasturing season and make reseeding more sure. Certain it is that lespedeza will make some growth on poor soil which has never been treated with lime, fertilizer or manure; the principal question is whether the crop will make enough growth to be worth while.

Kudzu is a plant which is, in many respects, unique. It will grow on acid soils and at times will make a stem growth which is remarkable. The famous Jack, who had interesting relations with a certain beanstalk, may have had preliminary tryouts with kudzu before making his notable climb to fame. A stem growth of from 25 to 50 feet in a single year is frequently made by the kudzu plant. It is sufficiently winter hardy after it once gets established. Although it is not all impressive the first year, it gets under way the second year, roots from the nodes and thickens its stand. A high percentage of mortality may be counted upon from the original setting of plants; in our own plantings we have secured only from ten to fifty per cent of the stand. You can also count on a period of three years before kudzu is ready for heavy pasturing and cutting. It will never be a crop for the tenant, therefore, or for the man who does not stick to farming. There is a question as to its feeding value. I have been told that cows turned up their noses at it when they had the choice between kudzu and clover or alfalfa. It is apparently a valuable plant for unsightly places such as steep banks, where a permanent cover, requiring no attention, is desired. For the north it is not a proven crop as far as practical application is concerned.

Serradella and beggarweed are two other acid soil legumes, both annuals, and both advocated for forage and green manure. The former has been tried at a number of the experiment stations, but at only one, Massachusetts, did it make a good showing, being considered almost as good as soybeans. It is reported that lime is even harmful to the growth of this plant. Florida beggarweed is, I suspect, worthy of a little more attention than it has received north of Florida. It makes good hay and if cut early enough it will produce renewal growth. In Florida, if it shatters its seed it will often produce a good stand by self seeding the following year.

Give Them a Trial

QUITE a few letters which we have recently received show an increascreasing interest in legumes which will grow on sour or acid soils. Because of this interest and because the subject is so important, we have made considerable investigation and inquiry as to the so-called acid soil legumes and their practicability in eastern United States. The articles on this page by Prof. Cox of the New Jersey Experiment Station, and John H. Barron, of the New York State College of Agriculture, you will find valuable if you are at all interested in the great problem of growing more protein at home instead of buying it in grain.

We believe that the farms are mighty few where clover or even alfalfa cannot be grown if proper attention is given to liming and other needed factors; but in addition to these old stand-bys, it is possible that there are other legumes which can be grown on acid soil without the necessity of heavy liming. Some experiments on your own farm on a very small scale with them would not cost much, would add to the interest of farm work and might find you something that would be a valuable addition to the dairy ration, if you have had experience, successful or unsuccessful, with soy beans, vetch, sweet clover or other legumes, tell us about it in a short letter.—The Editor.

SOY BEANS AND VETCH PAY WELL

JOHN H. BARRON

The only acid soil legumes with which we have had experience are vetch and soybeans. Personally I am thoroughly convinced that there is a large place for these legumes in the agriculture of the northern states and in particular in the sandy regions of New York State.

Vetch sowed with oats and the regular application of grass seed on the sandy soils, on the average, increases the yield of new seeding by about one ton per acre. About 10 pounds of winter vetch are required to do this.

(*Continued on page* 342)

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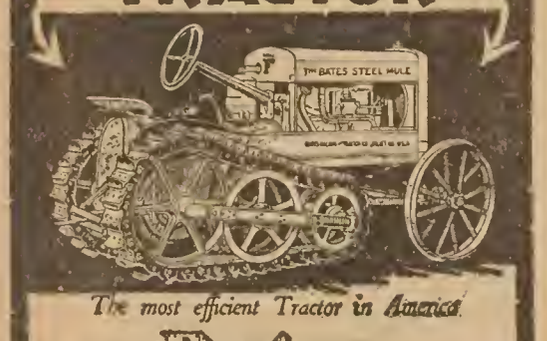

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Farm News From Albany

Bills for TB Indemnities Await Governor's Signature

TWO bills, providing a total of $5,000,000 to pay for tubercular cattle condemned by the State and slaughtered at its direction, have passed both the Senate and the Assembly, and have gone to the Governor for his signature. One bill would provide payment for cattle slaughtered during the fiscal year of 1922-23. The other provides for cattle slaughtered during the balance of 1923 and the spring of 1924. It is expected that if Governor Smith signs the bills—and it is believed he will—the money will become available in about six weeks after the bills are signed.

* * *

A joint committee of Senators and members of the Assembly held a hearing on the Rural School bill on Wednesday evening, April 11. Representatives of those who are for and against the bill spoke at the hearing. Full details of the hearing will be given next week.

* * *

The Downing bill providing $8,000,000 for maintaining improved State and county highways was signed by Governor Smith during the past week.

* * *

Senator Nathan Straus, Jr., of New York, chairman of the Committee on Agriculture, has introduced a resolution to appropriate $15,000 to investigate marketing costs and farm conditions. It is the belief that an investigation of this kind might solve the problem of wasteful marketing conditions which affect the cost of the farm produce to the consumer as well as the prices paid to the farmer.

* * *

Governor Smith has vetoed the "20-mile speed limit" bill, which, it is said, was a measure aimed at speed traps. The bill sought to eliminate speed traps by providing that speed limits set by third-class cities, incorporated villages and "second-class cities in counties adjacent to a first-class city" must not be less than 20 miles an hour. Under existing laws, the limit which may be set by the municipalities is 15 miles per hour.

* * *

Three bills designed to provide equal rights for women, which have already passed the Senate, have passed the Assembly unanimously. The measures introduced provide respectively for the descent of property to children without regard to sex; raising the age at which girls can make wills from 16 to 18, and giving women equal rights with their husbands in the matter of guardianship over children in case of separation.

* * *

Two measures designed to increase the salaries of members of the Legislature and Justice of the Court of Appeals were killed recently in the Assembly.

* * *

A bill providing for "short-ballot" has been agreed upon by the Governor and a committee from the Assembly. This bill would provide for amendments to the Constitution by abolishing the office of Secretary of State, Treasurer and State Engineer as elective officers, creating 19 civil departments with the heads appointed by the Governor. Other changes were made in the Constitution by this bill, such as the consolidation of some departments with others to avoid duplicity of effort, where the duties of present departments are overlapping. Inasmuch as this is a constitutional amendment, it will be submitted to the vote of the people before it could become a part of our Constitution.

ALONG THE SOUTHERN TIER

Maple-sugar making is now in full swing. The cold weather the latter part of March delayed this work very much. Some farmers were caught with their buckets well filled with sap. On the first of April, a foot of snow was reported to be in the woods. Frost went down last winter at least three feet.

The fire at the Borden plant at Afton the last week in March created some confusion in the delivery of milk. Arrangements were quickly made, however, to take care of the milk of the farmers. Takes more than a little thing like that to upset their plans very long.

An order has been issued by the Post Office Department at Washington discontinuing the office at Union, in this county. This now becomes a branch of the office at Endicott, and mail must be addressed Endicott, Union Station. The post office at Union was one of the first, if not the very first, to be established in Broome County.—E. L. V.

WESTERN NEW YORK NOTES

ALVAH H. PULVER

The Rochester office of the Federal Bureau of Markets has closed for the season after a busy seven months' service in providing shippers and growers with most valuable information. It is estimated that the tonnage of releases from this district in the last forwarding season mounted to $75,000,000 in value, making the year's service the most useful to growers since the inception of the idea seven years ago.

The work of the bureau is most interesting. The service consists of a daily mimeographed report sent out to nearly 800 growers, shippers, brokers and railroad officials, containing information national in scope and giving data on every car of fruit and vegetables shipped in the United States and the destination, together with prices and market conditions at shipping points. Information of this kind has a tendency to prevent evercrowding of markets with any one particular commodity while a shortage may exist in another.

The bureau also sent out much data giving tabulations of storage holdings, crop estimates with special reports on apples, celery, lettuce, grapes and other leading crops of Western New York, together with reviews of prices prevailing in other years.

Women Endorse Rural School Bill

The Executive Committee of the Monroe County Home Bureau has endorsed the Downing-Hutchinson bill, embodying the recommendations of the Committee of 21 recently introduced into both houses at Albany. The members believe that all children of the State should have equal opportunities for education, and that the present system, designed in 1812, does not give equal opportunities to-day. The committee urges members throughout Monroe County to secure copies of the bill and press forward for its State-wide adoption.

"What Hath God Wrought?"

(*Continued from page* 333)

College of Agriculture, who has promised American Agriculturist to broadcast from this station next Wednesday evening at 7:30 P. M. Professor Warren is the author of the Warren Formula for determining the cost of milk production, and is known as one of the best farm economists in the United States. A few of the other speakers whom we have in mind to talk to you are Dean Mann of the New York State College of Agriculture, Jared Van Wagenen, Jr., and H. E. Cook, those genial farm philosophers, well known and loved by farmers throughout the East, and Mrs. Bridgen, President of the State Federation of Home Bureaus, who will have a special message for farm women.

Whether or not the American Agriculturist and American Telephone Company Farmers' Radio Service is continued will depend upon the interest and appreciation by farm folks. In order to get some definite information upon which to build a better farm radio service, we are asking the questions in the box on page 333. Fill in the answers as best you can, cut out the whole page and mail it to American Agriculturist, 461 Fourth Avenue, New York City. If you do not wish to answer all of the questions, answer some, anyway. Will you help by doing this? If you do not own a radio, perhaps you will give the questions to some one who does.

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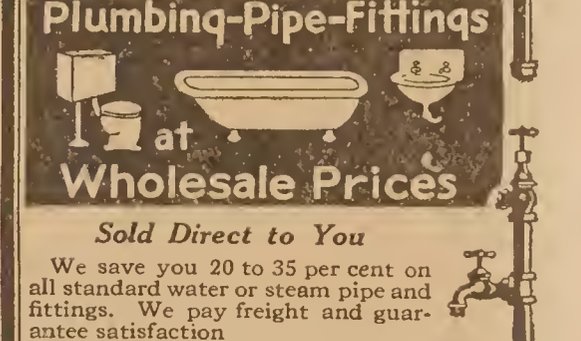

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New Jersey Farmers' Purchasing Associations Federate

W. H. BULLOCK

THE New Jersey Farmers' Cooperative Purchasing Association came into being on April 3, with its incorporation by representatives of eight local purchasing associations in the State. This action followed the meeting last month at which the committee for incorporation was appointed. The new organization will purchase feed, fertilizer, binder twine, spray materials and other supplies at cost for its member associations, the latter representing 1,200 producers in New Jersey who as individuals purchased $2,500,000 worth of supplies and equipment last year.

This is the first cooperative purchasing organization in New Jersey to be operated on a State-wide basis, and its function will be to serve the member organizations in New Jersey similar to the service of the Grange-League-Federation Exchange in New York. The first problem before the association is to learn the current season's needs of its member associations, after which pools along commodity lines will be formed. Tentative plans indicate that binder twine and a few other supplies may be handled during the coming months, while attention may be given late in the summer and next fall to such commodities as dairy feeds.

Officers for the Ensuing Year

The officers elected for the coming year are: President, Samuel Atchley, Trenton, Vice-president of the Mercer County Farmers' Cooperative Association; Vice President, T. Sherman Borden, Beverly, President of the Beverly Farmers' Cooperative Association; Treasurer, John H. Hankinson, Glen Moore; and Secretary, P. A. Garretson, Belle Mead, President of the Belle Mead Farmers' Cooperative Association. Mr. Atchley, Mr. Borden and Mr. Garretson, with H. H. Albertson of Burlington, President of the Burlington Fruit Growers' Cooperative Association, and Theodore H. Dilts, Three Bridges, President of the Hunterdon County Farmers' Cooperative Association are the five incorporators.

The five associations represented by these men, together with the following, comprise the present membership of the new State Purchasing Association: Bergen-Passaic Farmers' Cooperative Association of Paterson; Mt. Holly Fruit Growers' Cooperative Association of Mt. Holly; and Vineland Cooperative Association of Vineland.

This is considered one of the most important organization moves affected this season in New Jersey. It follows upon two years' investigation by the Purchasing Committee of the New Jersey Federation of County Boards of Agriculture and the New Jersey State Bureau of Markets. Membership is open to any cooperative purchasing association in the State, the liability of each member association being limited to $1,000, and the liability of each director to $500.

Dairymen Look for Late Spring Pasture

Throughout Northern New Jersey, meadows and pastures showed no signs of awakening by early April. The few warm days so far this season were not sufficient to stimulate the grass, and dairymen in Sussex, Warren, Hunterdon and adjacent counties have shaped their plans for a late season.

Severe weather at the close of March and in early April caused damage to crops of truck growers in Passaic and Bergen counties who did not protect their frames against the cold weather. Considerable loss was reported from some sections. On the other hand, the unseasonable weather apparently did not damage fruit buds in Central and Southern New Jersey, these being reported in as good shape as earlier in the season.

Plans for road work are progressing rapidly in many of the counties, recent meetings of the local authorities indicating generous funds for county work. In Morris County the highway authorities recently laid plans for the improvement of 54 miles of county roads at a cost of $257,490.

We take the A. A. and enjoy reading it very much.—Mrs. O. A. J., Penna.

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IT ISN'T sun-drying that puts quality into hay, but *air-curing.* And hay is air-cured best when side-tedded into light, breeze-sifting windrows such as those that trail off in the wake of the

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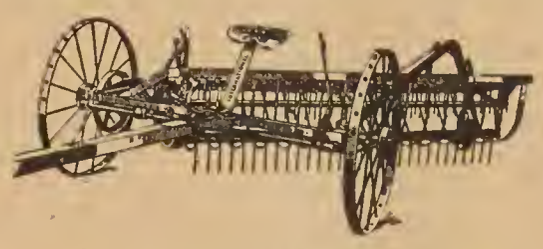
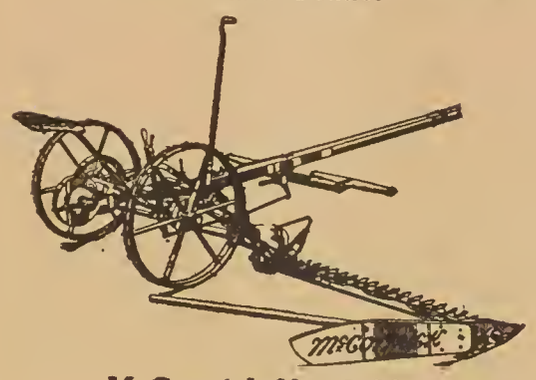


McCormick-Deering Side Rake and Tedder



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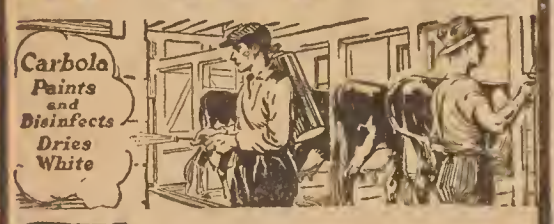

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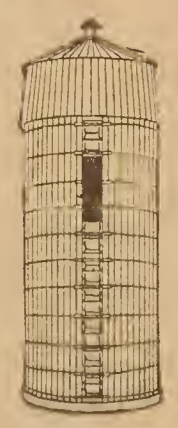

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3

How I Handle Baby Chicks

Avoiding Common Chick Troubles That Cause Losses

By MRS. A. C. UMOSELLE

I FIND that incubators are the most satisfactory way to hatch chicks. I have tried the old way with hens, but observed that when hens were laying they would not set, and when they were setting they would not lay. By the time the hens wanted to set, I found that they were my best breeding stock, but, of course, could not use their eggs. The small incubator (144-egg size) I find the most suitable for myself. They are easily handled, and not so heavy work as the large size. I have two, and have been using them seven years. I have had no record-breaking hatches, but what hatches I do get are strong, healthy, vigorous chicks—the weaklings are all culled in the hatch.

I use hens for the brooding stage, giving each hen about 20 chicks at the start. In about a week or 10 days, according to their development and the weather, then a hen can take care of more. I used artificial brooding four years, but since trying this way, I find it more satisfactory. I do not know why, but I notice the chicks become more natural by being with a nice, motherly old hen, and they soon learn to get to shelter should a rain come up. On rainy days they come out only between showers. I use colony houses 6 by 15 for brooding, and as they get larger move them into the regular house, which is 15 by 50.

A Novel Feeding Practice

As to feed, anyone may get the formulas for mixing the different rations from any of the State experiment stations. There are several ready-mixed feeds for poultry on the market, but I prefer my own mixing. I have tried many different kinds of feeds and formulas, and from them have evolved a formula of my own, which is very satisfactory.

When the chicks are 10 or 12 weeks old, instead of keeping on with the growing ration, I change to the laying ration. I figured that if a ration is good for laying hens it must also be good for growing birds and also develop the egg-producing organs. When they are put in the house for the winter for laying purposes, about October 1, it is too late for me to start the laying ration. I want them in shape, then, to start work.

In the past years I thought, also, that there must be at least a foot of litter in the house during the winter, or the birds would get no exercise, and get fat and lazy. Now, I think if a hen must expend all her energy scratching all day long to get enough to satisfy her appetite, she has no resources from which to produce eggs. Therefore, I keep enough dry litter on the floor to protect them from the weather. But the main thing with poultry is to keep them satisfied and contented, and never crowded, thus eliminating danger from sickness and disease.

Some Worth-while Figures

I know that expert poultrymen will say that I am "mad" to follow the above method in caring for poultry, but if they will peruse, carefully, the following expense account they will at least concede that "there is method in my madness." On April 10, 1922, I had hatched 100 White Wyandotte chicks; May 12, 1922, 140 White Plymouth Rock chicks. Of this bunch I raised to maturity 210 birds, the others being destroyed by varmints. I began marketing cockerels October 10, and by December 1, I had sold 100 for $240; used 10 for our table and have 100 pullets now. The Wyandotte pullets started laying September 1. The Rock pullets started November 1. Expenses, cost of eggs, expenses of running incubators, actual cost of feed to December 1, $235; cost of feed December, January and February, $113.50; total, $348.50.

Marketing 100 cockerels, $240; 50 dozen eggs, September and October, $25; 35 dozen eggs, November, $21; 85 dozen eggs, December, 1922, $59.50; 115 dozen eggs, January, 1923, $80.50; 110 dozen to February 22, 1923, $77. Total receipts, $503. Total expenses, $348.50, and profit, $154.50, over the actual cost of feed for my season's labor, and 100 laying pullets free of encumbrance. Until three years ago, when prices began to soar, I allowed 10 per cent depreciation on the incubator, but then I raised it to 15 per cent, so now (theoretically) they have depreciated 100 per cent. But practically they have paid all charges, and I have two good incubators, clear, thus lessening the cost of production for the coming years.

TREATING CHICKS FOR GAPES

ELMER WHITTAKER

The wet spring season of the year is the time when they are most troublesome if they bother at all. They are found almost entirely upon heavy clay soils, for the reason, that such soils are suited to their propagation. The trouble is indicated by an apparent gaping, which, in reality, is a gasping for breath, caused by a clump of small worms lodged in the wind-pipe, and sucking blood from its walls at the same time. These worms are about the size of coarse No. 30 thread, and from a half to three-quarters of an inch long.

Infection may take place by the swallowing of the worms or their eggs in food or water. Their eggs have been found in earth worms, or angle worms, as they are commonly called, and are supposed to infest the soil or litter of yards, old wood-piles, and trash. The infection is much more troublesome where chickens have been raised for years without the soil having been turned, or anything raised upon it. This is especially the case upon heavy soils. It usually comes on when the chicks are from four to eight weeks old, and takes the weaker ones first. Many of the stronger ones are, no doubt, infested, but have the strength to throw it off and outgrow it.

Other Symptoms

Symptoms besides gaping include convulsive shaking of the head, a contracted neck, closing of the eyes, drooped wings, roughened plumage, and a weak, staggering walk. Treatment should consist in separating the infected fowls from the rest of the flock or brood, and keeping them in dry, warm, disinfected quarters.

To remove the worms from the windpipe is a delicate operation, and requires deft, nimble fingers to do it successfully, for it must be done quickly when once begun.

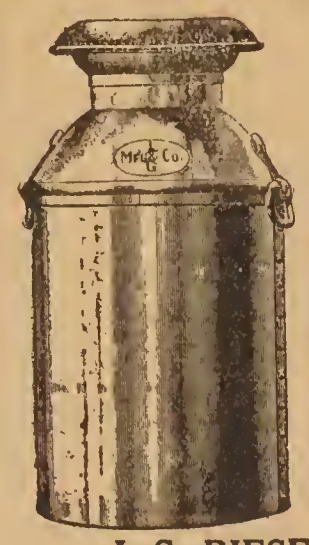
A stiff hair from the tail of a horse should be provided, doubled and twisted, leaving a small loop at end just large enough to pass down the opening of the wind-pipe. Hold the mouth open with the fingers so you can readily see the upper end of the wind-pipe, and when it opens, insert your loop and run it down the pipe, at the same time giving it a twist and removing it. This will generaly entangle the worms and bring them out in a clump. This operation must be carefully and quickly done, or your patient dies in your hands. Some are used to dipping the hair in turpentine before using. Any worms removed should be burned at once.

Another Good Remedy

Another good plan is to place all the affected chicks in a small box, covering it with loosely woven burlap and sprinkling air-slaked lime on the cloth, tapping it lightly to make it sift through the cloth, among the chicks. This dust is drawn into the trachea in the gasping for breath, suffocating the worms and causing them to lose their hold. Then the sneezing of the chick throws them out. There should be a burlap covering to the bottom of the box, and, after the work is done, all should be removed and burned.

Some claim good results from a drop of camphor down the throat. Prevention is the best, and that consists in thoroughly spading or plowing all the runs over which the chicks work. This has a tendency to clean the worms out, and they are soon all gone when turned up to the sun. The growing of a crop on the ground is a good thing. Make

MILK CANS



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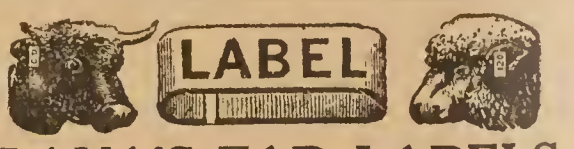

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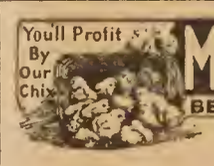

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it a rule to keep the young chicks in coops until the morning wet is dried off. This is one of the greatest helps.

LEG WEAKNESS IN BABY CHICKS

There are a number of factors which can cause this leg weakness in chicks, which is so very common among the early broods, and very often among what appears to be the strongest chicks. Leg weakness may be inherited. The constitutional vigor of the parent stock may not have been such to impart rugged constitutions to the baby chicks, which during the unsettled and cooler weather of early spring give way to constitutional inability to fight the hardships under which they live. If it is apparent that this is the factor causing leg weakness, the only thing to do is care for and feed the chicks as well as possible and use them for layers or market stock rather than for breeding purposes another season.

Leg weakness may also be caused by malnutrition, especially if the ration lacks bone-making food. The feeding of skim milk is an excellent idea, as it not only furnishes food for the chicks, but is a regulation for the digestive system and lactic acid property of skim milk, is a tonic, and an important one, to prevent the very common white diarrhœa.

Danger in too Long Confinement in Warm Quarters

Perhaps one of the chief causes of leg weakness is confinement of the chicks to a warm, dry floor for too long a period, and, other conditiones being equal, this is probably the cause for the trouble. During a warm spring such as has been the case this year, great care must be taken with a coal-burning hover to prevent too high a temperature.

The chicks, after a week old, should run out of the brooder for a few hours on available clear day, even though the ground may still be cold and frozen. The chicks will seldom catch cold while moving about. They should not be allowed to stand out of doors, but must be kept moving until they learn to go back to the warmth of the hover when they feel cold.

Best regulated brooders are so constructed that the heat reaches the chicks from above and not through the floor. Sometimes chicks will roost on the hot water pipes and heat conductors and protective measures must be made to prevent this.

BUILDING A GOOSE SHED

ELMER WHITTAKER, MASSACHUSETTS

Geese do not require much protection from cold, but they need a dry and weather-proof shed for a resting place. A flock of geese will often swim in a pond when the ice forms all over the pond, except on the spot where they are swimming, where they keep it from freezing by keeping the water moving, and will suffer no damage; but if their quarters are wet, or even damp, trouble will follow.

A shed allowing five or six square feet of floor space to each goose to be housed, is large enough if the geese can run out whenever they wish. It may be made of cheap boards on a substantial frame and covered with tar paper to keep the water out. Glass windows are not necessary (though they are to be advised), but there must be sufficient open space in the south side to admit light and air, so that the sun will dry out the building readily, and this space should have a curtain, or burlap, or loosely woven cotton cloth, to keep out rain and snow. On fair days it must be opened.

The place should be on a well-drained place, and it is best to fill in with sand a few inches above the surrounding ground, to do away with any tendency toward dampness. A thick bed of straw, leaves, cornstalks, or something of the kind should always cover the floor, and should be removed, and a new supply put in as soon as it becomes damp.

Make the Pullets Scratch.—Pullets should be made to scratch for the grain given them as the exercise is necessary to retain good health. If any signs of slackness are apparent, a little epsom salts should be given either in their drinking water or in their mash.

150 HEALTH-GUARANTEED Foundation-Quality Holsteins 150

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COMMENCING AT 10 A. M. EACH DAY

THE CONSIGNMENTS:

Wheatfield Farms Herd of 50 head. Complete dispersal of the remarkable herd that has developed 21,000-lb. to 25,000-lb. yearly record 3-yr-olds and cows with records up to 33,000-lb. milk in a year, also year's butter producers with 1090 to 1211-lb. to their credit. **One of the greatest living May Echo Proven Sires** is in the sale with fifteen of his daughters—heifers of true foundation quality.

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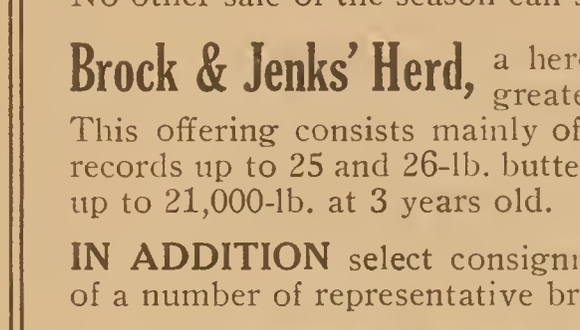
Brock & Jenks' Herd, a herd that has developed some of the greatest producers in the Eastern States. This offering consists mainly of daughters of A. R. O. dams with records up to 25 and 26-lb. butter in a week and year's milk records up to 21,000-lb. at 3 years old.

IN ADDITION select consignments are included from the herds of a number of representative breeders.

The three herds named are all on the Federal and State Accredited Plan and like the other consignments have all passed a clean test. We offer in this one sale all the advantages of three separate high-class herd dispersals with the best that could be selected from other quality establishments. This will be a sale of Holsteins bred for heavy milk and butter production. The 60-day health guarantee applies to every consignment.

E. M. HASTINGS, Sale Manager, Pulaski, N. Y.



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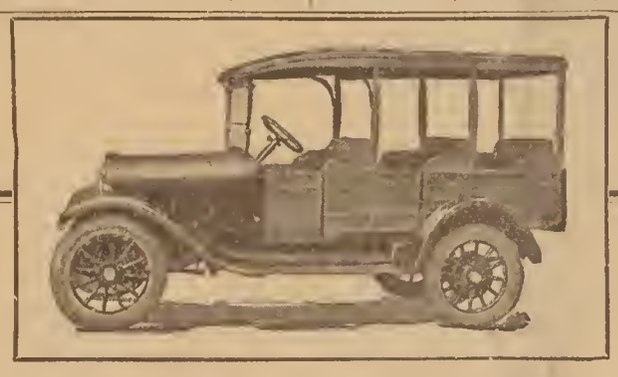

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Cutting Costs With Beets

A Means of Getting More Out of Our Purchased Feeds

By ALLEN RIDGWAY

DAIRYMEN'S efforts toward economic production have led to an almost universal use of the silo, and, within the past few years, to the extensive use of alfalfa and soy beans.

Those who have calculated not only savings, but the quantity of milk obtained through use of home-grown feeds, have further turned their attention to pedigreed mangels—"cow beets."

Several factors have entered into the study of mangels and their use. Some are found in the shifting conditions which require dairymen to modify, from time to time, their systems of management. Others are in the reports coming from agricultural experiment stations.

Consider first the purely economic causes. It was less than a generation ago that New York and the New England States were the great center of dairy production. In those days the by-products of the flour and linseed oil mills of the Northwest and the cotton oil mills of the South were shipped to them to be fed to dairy cattle. Then, one could buy bran for $9 a ton and linseed and cotton seed meal for about $15 a ton, less than one-third of what they cost to-day.

Competition Coming In Rapidly

NOW, according to recent census, Minnesota and Wisconsin have as many milch cows as New York. Iowa and Illinois are not far behind. The Western States are not only competing with New York and New England for dairy feeds, but they are competing with one another. The supply of bran is not increasing and cotton and linseed meal are diminishing.

Freight rates have increased so that they are a serious factor in using concentrates.

The total cost of purchased feeds, in brief, has advanced at a rate out of proportion to the cost of other production factors and the price which dairy products bring on the market.

The use of silage, alfalfa and the soy bean grew out of these conditions within the memory of those now actively engaged in feeding cows. Each represents a step in the dairyman's progress toward growing his own feeds. Each brings him nearer to his desire to be independent of the by-products of mills located at a distance, which carry in addition to their initial cost the burden of high freight charges. Use of mangels is one possible means by which Eastern farmers can meet the high cost of feeds.

While they have been fed to live stock in Europe for more than 300 years, it was not until official testing had been well started in this country that mangels began to be fully appreciated by the American farmer. Then their popularity increased so rapidly and their use in the test ration became so general that an experienced tester now hesitates to feed a test cow without having beets at hand, either fresh mangel beets or in the form of dried sugar-beet pulp.

Fresh Beets More Practical

IN increasing degree they will probably be the fresh beets. It is difficult to get a steady supply of dried pulp. It is a by-product from the sugar-beet factories. When it was first put on the market it sold at a moderate figure, for use principally in test rations. Its wonderfully stimulating effect upon the milk flow brought it popularity. After the war, however, the acreage of sugar beets was reduced and the supply of beet pulp was materially curtailed. As a result, the price went up until the pulp sells now for considerably more than $50 a ton, an almost prohibitive cost. Moreover, there are long periods during the year when it is off the market entirely.

Mangels have all the feeding qualities of dried beet pulp. They have the same tonic effect upon the cow, stimulate the appetite in the same way, and are just as much an aid to digestion. They are even more palatable, and because they are fed fresh, furnish an unfermented natural succulence that keeps the system open and cool, a condition much to be desired in a high-class dairy cow.

The objection that formerly was made to mangels was the cost of producing them. This was relative and had no justification except when concentrates cost less than they do now, and when dried beet pulp was plentiful and cheap.

The cost of growing mangels depends largely, if not entirely, upon the yield per acre. This, in turn, depends upon the source of the seed used. In some parts of Europe mangels are as important cattle feed as corn is here, and the same scientific effort that Americans have devoted to corn has been, by the Europeans, used to increase the yield per acre and feed value of mangels. A number of high-yielding varieties, with a greater proportion of dry matter than is ordinarily found in mangels, have been developed. The seed from which they are grown is specifically pedigreed.

A yield of 72 tons per acre has been produced from these seeds in the United States and reports from a large number of growers in different parts of this country indicate an average crop of well over 32 tons per acre from these pedigreed imported seeds. This average is lower than the yields made in Great Britain, but it is correspondingly higher than the yields obtained from ordinary seed.

As to the feed value of mangels, the Cornell Experiment Station reports that they contain 12.75 per cent dry matter. A 32-ton yield per acre would contain, therefore, 8,160 pounds of dry matter.

Henry, in his "Feeds and Feeding," states that practically all the dry matter in mangels is digestible. If it is assumed that even 90 per cent is digestible, a 32-ton yield would produce 7,344 pounds, or 3.67 tons of digestible dry matter, a larger amount of digestible dry matter than is produced with any other crop.

Some Worthwhile Cost Facts

WING and Savage, as well as some Danish investigators, have found that the dry matter in mangels is equal in value, pound for pound, to the dry matter in grain, and that mangels may replace half the grain in the dairy ration. An estimate based on these facts shows that an acre of mangels yielding 32 tons, is worth, measured by the price of grain to-day, about $167. Carefully kept figures show that pedigreed mangels can be grown for less than $4 per ton.

Mangels fed with corn, oats or soy beans for concentrates, and silage, clover, alfalfa or soy bean hay for roughage, will decrease the amount of land required for the maintenance of a cow, and in consequence increase the number of cows that can be fed without purchased feeds upon a farm of a given size.

A ration made up of these home-grown feeds will not only keep up a satisfactory milk flow, but will reduce the cost of production so that the dairyman can make a fair profit on his investment.

Legumes for Acid Soils

(*Continued from page* 337)

Inasmuch as vetch hay in feeding value is comparable to alfalfa, it looks to me like the use of vetch was worth while.

In the market, garden sections on the sandy lands, vetch, has a considerable place as a cover crop to live over the winter. Used in combination with rye, it is very satisfactory. In this connection, however, it is worth stating that experience with vetch on Long Island, has not been uniformly successful. It seems to be hard to establish for some unknown reason. However, this year on demonstration plots, after having had two partial failures, the vetch is going into the winter in very satisfactory condition.

Throughout the southern tier counties of New York State, soybeans are showing up very well as a supplement to corn for silage at the lower elevations where the growing conditions are fairly favorable for corn. In general the best way of utilizing the soybeans for this purpose seems to be to plant them alone

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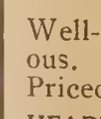

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in rows and cultivate them or broadcast by hand, or solid with a grain drill. Usually about four-fifths of the regular silage corn area should be planted to silage corn and one-fifth to soybeans. The soybeans in our experience have yielded per acre of green weight, over one-half as much as corn to fully as much as the corn. Inasmuch as they are rich in protein when mixed with the corn at silo filling time, they considerably increase the content of the silage corn in its valuable feed nutrient.

Soybeans also have a considerable place as a hay crop on sandy and gravelly lands. They can be sown as above mentioned for silage and will yield two to three tons of hay per acre, which is very palatable and high in feeding value.

WHY BUILD A SQUARE SILO?

I am putting up a new square silo, some tell me to board it on the outside, and others tell me not to. Which do you think is the better way, and what is your opinion of putting on a roof? This silo is 13 feet square and 30 feet high. Please tell me how many tons it will hold?—J. E. H., New York.

I wonder why you are building a square silo, for I thought that this idea had been so long ago relegated to the limbo of bad practice that no one ever built square silos any more.

Round silos are more uniformly stronger, permit of more even settling of the grain, and actually keep silage better. I do not know just what you mean by boarding it on the outside. If you have built it of wood, I assume you are using studs and boarding it on the inside. Your question is as to the desirability of the outside covering. It may help a little bit in preventing freezing, but this consideration is really of small moment. It may make the structure look a little better to have it boarded on the outside. Personally, I believe a roof is a desirable adjunct to any type of silo, as it prevents the gathering of great quantities of unnecessary moisture inside the silo in wet seasons, to say nothing of snow. The silo of the size you mention will contain slightly in excess of 100 tons.—K. J. T. E.

CARCASS INDICATES T. B.

I have butchered a pig about four months old and find that the liver is all covered with yellow spots. About ten days before butchering, the mate of the one I butchered, died. What do you think was the matter? Is the meat fit to use, of the one I butchered? It looked to be in good health before killing.—(Jacob Schmidt, Saratoga County, N. Y.

Your description leads us to infer that without a doubt the animal was suffering from tuberculosis and under no condition should the meat be used for food. As a matter of precaution you should call your veterinarian to examine the rest of the animals on your place. If it develops that the animals were suffering from tuberculosis or another disease such as hog cholera, new stock should not be placed in the old quarters.

LIVESTOCK SALES DATES

Apr. 17-18—The 1923 Holstein Sale, Syracuse, N. Y., E. M. Hastings, Mgr., Pulaski, N. Y.

April 19-20—Dispersal Venango Farms purebred Holstein Herd, Liverpool, N. Y.

Apr. 25—E. Washburn & Son Dispersal of Holstein, Wolcott, N. Y.

Apr. 28—Millington Holstein Breeders' Sale, Millingtown, Ct.

May 8-9—New York State Holstein Spring Sale, N. Y. Holstein-Friesian Association, Earlville, N. Y.

May 15—Knollwood Farm Guernsey Sale, Port Chester, N. Y., L. F. Herrick, Worcester, Mass., Sale Manager.

May 17—National Guernsey Sale, Devon, Pa., L. F. Herrick, Sale Manager.

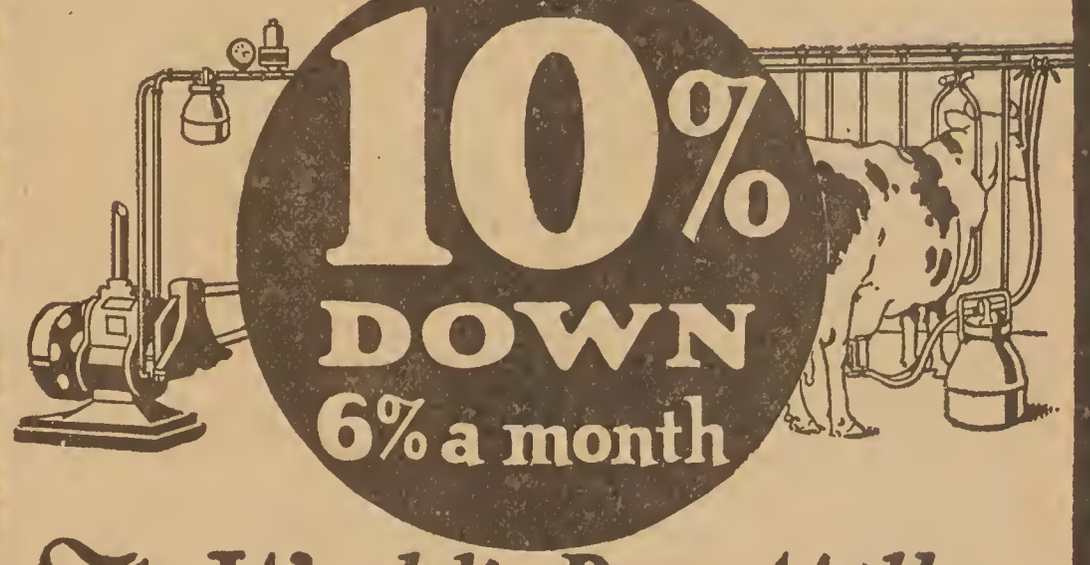
May 18—Louis McL. Merryman, Semi-annual Sale, Timonium, Md.

May 21-26—First Ayrshire Spring Dairy Show, Boston, Mass.

June 1—Ayer-McKinney's Fourth Annual Sale of Jerseys, Meridale Farms, Meredith, N. Y.

June 2—Fifth Annual Sale, Bradford County Milking Short-horn Breeders' Association, Towanda, Pa.

Now! you can get a De Laval Milker FOR 10% DOWN 6% a month



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Over 20 years were spent in the development of the De Laval Milker, until the De Laval Company was absolutely sure of its mechanical perfection. Since then over 10,000 have been sold and actual use has proved the De Laval to be superior to any other method of milking.

Increased production enabled prices to be reduced in September 1921 and again in September 1922, which now places De Laval Milker prices on a "rock bottom" basis.

Finally, the announcement of these extremely liberal terms places the De Laval within the reach of any one needing a milking machine.

For 10% down you can start using a De Laval right now, and 6% a month for 15 months pays for it. You can save enough in time and labor, and get enough more milk of better quality, to more than meet the monthly payments.

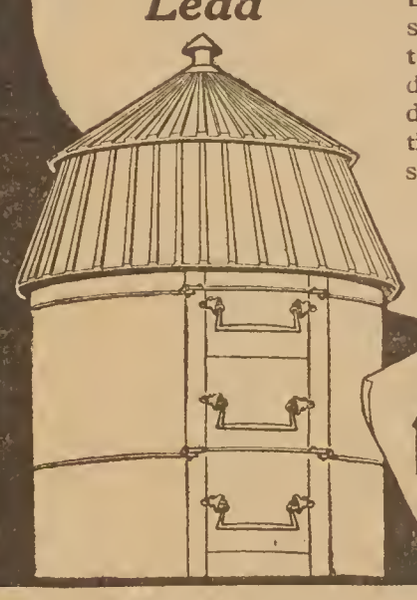
There is now no need of milking by hand, which is slow, costly and disagreeable. Get your De Laval in now before your rush season. See your De Laval Agent or write us for full information.

The De Laval Separator Company

NEW YORK 165 Broadway | CHICAGO 29 E. Madison Street | SAN FRANCISCO 61 Beale Street

UNADILLA SILOS

They Lead



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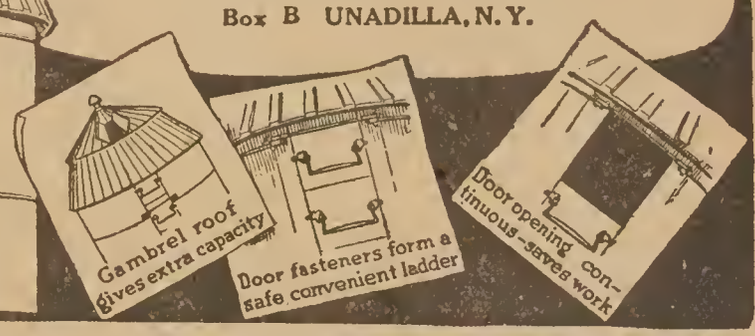
Write for catalog and early order discount offer

UNADILLA SILO COMPANY
Box B UNADILLA, N. Y.



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Steady running—Fast cutting—Practical—Durable. A Powerful Throttling Governor Engine—Non-Spill Water Hopper—Lever Control of saw. Tree Saw parts extra. A better rig at a lower price. Send for FREE Catalog today.

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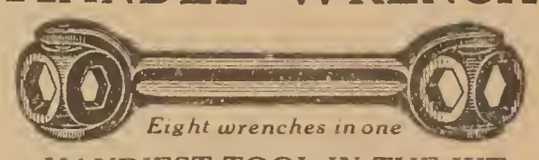

Eight wrenches in one

HANDIEST TOOL IN THE KIT
A turn of the end and up comes the size you need
Sent post paid $1.00
Agents wanted in all territories
ACCESSORY SUPPLY COMPANY
Indianapolis, Indiana

THIS IS *YOUR* MARKET PLACE

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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

BLACK JERSEY GIANTS—Large birds, yellow flesh, descendants of originators. Now booking orders for eggs and baby chicks. Giant history and prices free. SUNFLOWER POULTRY YARDS, Box A, Oceanport, N. J.

ORIGINAL D. W. YOUNG STRAIN Single Comb White Leghorns. Strictly exhibition stock. Cocks and Cockerels, $5 and $10 each. C. O. D. if desired. Eggs, $3 per 15. MAPLE HILL FARM, Fort Plain, N. Y.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

R. C. REDS—dark even red, standard size, bred from 200 to 245 egg-trapnested birds. Pens, $3 per 15; flock, $2 per 15; $10 per 100. MR. JOHN KING, R. F. D. 2, Summerville, Pa.

EGGS—S. C. Buff Leghorns; S. C. White Rocks; S. C. R. I. Reds; pure-bred; great winter layers; $1.25—15; $7.00—100. Prepaid. GEORGE U. STEINER, Powhatan Point, Ohio.

TORMOHLEN'S EVERLAY BROWN LEGHORNS; strain holding world's record for best layers. Day-old chicks, hatching eggs reasonable. SUNNYSIDE FARM, Emporium, Pa.

BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

SINGLE COMB WHITE LEGHORN HATCHING EGGS, from two year old stock, Wycoff strain, $2 for 24; $7 per hundred, delivered. ALLAN MORTON, Ashville, N. Y.

EXHIBITION SINGLE COMB White Leghorns, Pure Dan Young Strain. Two pens only. Eggs, $3.00 and $5.00 per 15. J. C. SPANG, Box 205, Rochester, N. Y.

DARK ARISTOCRAT BARRED ROCKS exclusively. Eggs, $9 100; Pens, $3 and $5 per 15. Fertility guaranteed. HILLCREST FARM, St. Joseph, Ky.

HATCHING EGGS—S. C. W. leghorn heavy layers; $1.25 per dozen. Carton, $7.00 per 100 eggs. SULPHUR SPRING FARM, Route 1, Cameron Mills, N. Y.

PARTRIDGE AND COLUMBIAN ROCKS—Allentown fair winners. Eggs, $2.50 per 15. Satisfaction. WILMER S. GEORGE, Quakertown, Pa.

BARRED ROCK HATCHING EGGS. Parks strain; 15, $1.50; 100, $7. Postpaid. Good layers. MRS. D. J. WASHBURN, Adams, N. Y.

RHODE ISLAND REDS (both combs), famous Red Cherry strain. Eggs $2 per 15 delivered. SPRINGDALE FARM, Wyalusing, Pa.

BABY CHICKS—Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer,

SINGLE COMB BLACK MINORCAS, Great layers, Cockerels and Hens eggs, 15, $2; 100, $8. THOMAS EBERSOL, Carrollton, O.

ROSE COMB RED HATCHING EGGS, the dark-red kind, Sprague strain, $2 per 15; $5 per 50. R. A. LITTLER, Tiffin, Ohio.

PEARL GUINEAS. White Wyandotte, Mammoth Pekin Duck Eggs. LAURA DECKER, Stanfordville, N. Y.

SILVER-LACED WYANDOTTE EGGS from pure-bred stock; $1.25 for 15. OPAL SANTEE, R. D. 3, Freeport, Ohio.

R. I. RED EGGS, Owen farm strain. $1 per 15; $6 per 100. H. C. BEARDSLEY, Montour Falls, N. Y.

WHITE LEGHORN QUALITY CHICKS. Superior layers. Write NELSON'S, Grove City, Pa.

SILVER CAMPINES, wonder bird. Eggs, chicks. MAPLE LAWN FARMS, Cortland, N. Y.

ROSE COMB BROWN LEGHORN EGGS, Reasonable. MAPLEWOOD, Navarre, Ohio.

BOURBON RED TURKEY EGGS $5 per 10. GEO. LEHMAN, Amaranth, Pa.

EGGS AND POULTRY

S. C. BLACK MINORCA AND BARRED ROCKS hatchery eggs and chicks for sale. Minorca hens, weight 7 and 8 lbs., and lay largest chalk-white eggs of any fowl; eggs from finest selected Minorcas and Rocks, $2, setting 15 eggs for $8; Minorca Chick, $20; Rock Chick, $18. E. K. TAYLOR, Yama Farms, Napanoch, Ulster Co., N. Y.

LORD FARMS STRAIN WHITE LEGHORNS. The most favorably known layers in existence. Eggs $6 per 100. June chix, $12. FINE VIEW FARM, Box 47, Hammond, New York.

JERSEY BLACK GIANTS—Select hatching eggs, $5; utility stock, $3.50. Infertile eggs replaced. Write for prices on day-old chicks. P. E. COMSTOCK, Fabius, N. Y.

ROSE COMB BROWN LEGHORNS. Eggs from selected heavy winter layers, bred for thirty years; circular. MAPLEWOOD POULTRY YARDS, Milton, Vermont.

FOR SALE—23 Single Comb Ancona Hens, 1 and 2 years old, 2 cockerels; all $2 each. LEROY SHIRK, R. 1, Mt. Victory, Ohio.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

TWO PENS WHITE WYANDOTTES. LAURA DECKER, Stanfordville, N. Y.

SILVER SPANGLED HAMBURGS, $2 each. A. JACKSON, Cobleskill, N. Y.

TURKEYS

TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point. Ohio.

BEAUTIFUL BOURBON RED TURKEYS, Rose Comb Rhode Island Whites, white runners, eggs reasonable. MRS. ALICE TRAMMELL, Straits Corners, N. Y.

FEW WHITE HOLLAND TOMS. Few equal, none better than Anderson's strain, $15 and $20. H. W. ANDERSON, Stewartstown, Pa.

CATTLE BREEDERS

FOR SALE—Bull Calf descendant of the great Cornell Cow Glista Ernestine with 7 records of over 30 lbs. See records in my ad in Live Stock columns this issue. BRADLEY FULLER, Utica, N. Y.

SHEEP

FOR SALE—30 thorough-bred Dorset lambs; 10 rams, can ship in June. Prices reasonable. EDWARD DARISON, Munnsville, N. Y.

FOR SALE—Eight or ten ewe sheep, mostly yearlings, at right prices. O. T. HORCHY, Winthrop, N. Y.

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LET US TAN YOUR HIDE—Cow and Horse hides for fur coats and robes. Cow and Steer hides into Harness and Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

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SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

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AGENTS WANTED—Agents make a dollar an hour. Sell Mendets, a patent patch for instant mending leaks in all utensils. Sample package free. COLLETTE MFG. CO., Dept. 210, Amsterdam, N. Y.

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, immediately.

CATTLE

FOR SALE—Guernsey bull calf, four months, Lord Mar—Gov. of Chene breeding, nicely marked. For sixty dollars. B. DUBOIS SMOCK, Wickvale Farm, Matawan, N. J.

FOR SALE—Pure-bred Guernseys. All ages and sexes. May Rose breeding. Accredited herds. Farmers prices. JOHN CORBETT, Lancaster, Pa.

FOR SALE—Pure-bred Holstein bull calf. Best of breeding at veal price. Write for discription and price. FRANK E. THAYER, Freusburg, N. Y.

FOR SALE—Registered Jerseys, 2 cows, bull 3 years, yearling heifer. Good breeding. Farmers prices. HARRY BRIGHT, Hartstown, Pa.

AUCTION SALE, April 14. Accredited Holstein Herd. Registered and high grade. Young cows. Frank HOY, Johnsonburg, Wyo. Co., N. Y.

GUERNSEY BULL FOR SALE. Four years old, registered. Tubereulin tested. Seven May Rose crosses. JOHN B. HOOKER, Flycreek, N. Y.

TWENTY PURE-BRED AND GRADES Ayrshire cows and heifers. Price most reasonable. REED CHAMPLIN, Alfred Station, Allegany Co., N. Y.

FOR SALE—Eight registered Holstein cows. One Hampshire boar. Price reasonable. ARTHUR C. ROWSAM, Route 4, Lowville, N. Y.

REGISTERED GUERNSEY BULL CALVES. $40 each. Accredited herd. Or exchange for O. I. C. pigs. ALFADALE FARM, Athens, N. Y.

FOR SALE—Ayrshire bull calf one week old, of high breeding, at reasonable price WILLARD HOTALING, Star Route, Woodhull, N. Y.

AYRSHIRES—One bull, year old; One calf, six weeks. White, red markings, tubercular tested. R. B. DODDS, Champlain, N. Y.

FOR SALE—Milking shorthorns, both sexes, best of breeding. Farmers prices. L. HOTCHKISS, West Springfield, Erie Co., Pa.

HAVE YOU A PURE-BRED HOLSTEIN BULL IN YOUR STABLE? If not, write for sales list. DOTY FARM, Geneseo, N. Y.

FOR SALE—Holstein cows, heifers and calves, both sexes. Fine individuals, richly bred. LYON & CO., Wyalusing, Pa.

FOR SALE—Holstein cow, three-years old. 1 Chester white boar, seven months old. JAY W. BEARDSLEE, Millport, N. Y.

FOR SALE—Registered Guernsey cows, heifers and a bull one month old. RAY D. LEVAN Catawissa, R. 4, Col. Co., Pa.

FOR SALE—Holstein bulls, 2 to 14 months, $50 up, yearly record breeding, accredited herd. R. H. FLEMING, Alba, Pa.

FOR SALE — Two Milking Shorthorn bull calves. Prices reasonable. CHARLES FEISTHAMEL, Lowville, N. Y.

FOR SALE—Registered Guernsey Bull, two years old. Price, $100. EUGENE D. BALLON, Porter Corners, N. Y.

FOR SALE—Large 2-year old Registered Holstein Bull. HERBERT O. BREADS, R. D. 23, Westfield, N. Y.

BEES

HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, North Branch, N. Y.

DOGS AND PET STOCK

COLLIES ALL AGES. Have advertised with Homestead over thirty years. PAINE'S KENNELS, So. Royalton, Vt.

FOR SALE—Two female rabbit hounds; price $10 and $20. GORDON ELLITHORPE, Route 1, Hudson Falls, N. Y.

FOX TERRIERS OF PURE BREEDING. Puppies at $10 each. BARNETT'S KENNELS, Waynetown, Ind.

WOMEN'S WANTS

PATCHWORK—Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

SWINE

REGISTERED BERKSHIRE. Large bone type. Bred sows, service boars and young pigs. Order now for spring deliveries. Prices reasonable. FRED SCHULDT, Lyons, N. Y.

REGISTERED POLAND-CHINAS, BERKSHIRES, Chester Whites, all ages, mated, not akin. Bred sows, service boars; collies, beagles. P. HAMILTON, Cochranville, Pa.

REGISTERED DUROCS—Yearling son of Empire Pathfinder, extra choice, $50; yearling sows, $45; little pigs, $12; papers free. WALNUTWOOD FARM, Conesus, N. Y.

WANTED TO BUY. Registered sow, either O. I. C. Chester White or Berkshire. State price; write, BOYD WUCHOB, Route 5, Punxsutawney, Pa.

REGISTERED CHESTER WHITE PIGS. Big type; six to seven weeks old. $10 each. Registered free. WINFIELD G. PEARCE, Berwindale, Pa.

REGISTERED HAMPSHIRE SWINE, all ages, both sexes. Lookout—Wickware and De Kalt breeding. C. T. HARDESTY, JR., Summit Point, W. Va.

FOR SALE—Registered duroc pigs; best breeding and money-makers; $10 each for either sex. CLAUDE JENKINS, Shelbyville, Tenn.

REGISTERED BERKSHIRES; pigs, both sexes, open gilts, bred sows, best of breeding. HOWARD GILLETT, Stanley, N. Y.

MULE FOOT GILTS AND PIGS. Grade, Brown Swiss cow bred to undefeated bull. HAROLD PICKETT, Knowlesville, N. Y.

FOR SALE—Registered Hampshire gilts and young pigs at farmers prices. W. H. JORDAN, Meadow Brood Farm, Cambridge, Md.

FOR SALE—Registered Berkshire pigs, both sexes at farmers prices. EDWARD F. KLEINKE, Glenmont, N. Y.

FOR SALE—7-brood sows, due from April 1 to June 1. Also 3 shoats. ABRAM DENEEL, Williamson, N. Y.

DUROC GILTS BRED TO WINNING BOARS $40 to $50. RALPH WILSON, Bloomville, Ohio.

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DAHLIA BULBS—Beautiful varieties named twenty cents each; double hollyhock seed, choice, red, white and pink, packet ten cents. J. CALLENDER, Skaneateles, N. Y.

AMAGER STRAIN DANISH BALLHEAD CABBAGE SEED, Imported direct from Copenhagen, Denmark, $2.50 lb. postpaid. C. J. STAFFORD, Cortland, N. Y.

PROGRESSIVE AND FRANCIS EVERBEARING STRAWBERRY PLANTS, $1.60 per 100; $10 per 1000. BASIL PERRY, R. R. 20. Georgetown, Delaware.

FREE SEEDS—Hollyhock, dahlia, double poppy, with four dahlias, cactus, decorative or show, 50c. OLIVANNE DAHLIA GARDENS, New Bedford, Pa.

WHY PAY MORE? Strawberry plants, $2.50 up 1,000. Vegetable, flower plants, Bulbs, catalog free. COLIN McNICOL, Milford, Delaware.

SEED POTATOES AND SHADELAND CLIMAX OATS, White Grant and Russet Best to yield or cook. M. L. GLASGOW, Glasgow, Pa.

GLADIOLUS—$1 per 30 large bulbs. Mostly pink, postpaid. Produce immense blossoms. CLARA GOTHARD, Route 7, Lockport, N. Y.

DAHLIAS—Assorted tubers $1 dozen; choice named varieties, $2.50 dozen, prepaid. H. BENEDICT, Meadowbrook, N. Y.

HOWARD 17 EVERBEARING and others. PAINE, So. Royalton, Vt.

POULTRY SUPPLIES

FOR SALE—One new Buckeye Blue Flame Brooder, No. 28. Never uncrated. Price, $20. Freight prepaid. One 250-egg Wisconsin Incubator, price, $20. DONALD CONDE, Galway, N. Y.

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RELIABLE MAN WANTED: to take orders for fruit and ornamental trees, shrubs, roses and seeds. Opportunity to become district superintendent. Pay weekly. Equipment free. FRUIT GROWERS' NURSERIES, Drawer G, Newark, New York State.

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FOR SALE—110 acres; good buildings; orchard neverfailing water, gas fuel, two-thirds improved, one-third good timber, terms reasonable. M. J. McKISSICK, Fertig, Venango Co., Pa.

FOR SALE—110-acre farm, with stock and tools, cheap for cash, excellent soil, immediate possession. Box 303, AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

50-ACRE FARM, all complete, stock and tools, $6,400, half down; cows, horses, pigs, chickens and ducks. JOHN TODACK, R. F. D. 1, Port Crane, N. Y.

HORSES

FOR SALE—One pair Belgian colts, weight 2,800, kind and gentle, been handled single and double. THURMAN GROFF, Route No. 6, Fort Plain, N. Y.

FOR SALE — Caniaze bred colts; broke double; one single, also shepherd dogs, want Wyandotte fowl. O. BEEBE, Lebanon, N. Y.

FOR SALE—Pair work horses weighing twenty-six hundred. In good condition. JAMES N. FETTERLY, Mossena, N. Y.

FOR SALE OR EXCHANGE. Percheron stallion, iron gray, seven-years old, trade for mare. C. L. BRUMLEY, Randall, N. Y.

FOR SALE—3 horses; 2 cows; 2 hogs; 12 sheep; 20 hens. Reasonable prices, call. LLOYD PERKINS, Jay, N. Y.

FOR SALE—Pair young mules, kind, well broke, single or double, good workers, write MR. CHRISTY, Ripley, N. Y.

MISCELLANEOUS

MOLINE UNIVERSAL, Model "D" Tractor Outfit, new, with 2 bottom plows; truck and extra rims, complete; also general ordinance 14-28 horse-power tractor, used for demonstrator only, special prices for quick sales, also new Racine thresher, engine gang plow; fodder cutter; new victory milker units, etc. HAYSSEN, Seneca Falls, N. Y.

SEDGWICK HAND POWER INVALID OR FREIGHT ELEVATOR COMPLETE. Six hundred pound capacity, in good condition. A bargain. Price on application. SIDNEY CROWNSE, Altamount, N. Y.

5 AND 6 FOOT STEP-LADDERS, with truss rod under each step, folding shelf, made of basswood, light and handy. Price, $2.25 and $2.50 each. R. E. CARPENTER, R. 3, Mannsville, N. Y.

PRINTING—Letterheads, billheads, envelopes, circulars. Write requirements. Samples free. FRANKLIN PRESS, B-28, Milford, New Hampshire.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

ELECTRIC PLANT 32-VOLT ENGINE, generator batteries used 16 months, 225 electric power washer, $50. H. VAN KUREN, Rummerfield, Pa.

ALFALFA, mixed and timothy hay. Have seven cars, shipped subject inspection. W. A. WITHROW, Route Four, Syracuse, New York.

FOR SALE, International Harvester Company tractor 12-25 H. P. in first-class condition. D. E. PAGE, Perry, N. Y.

STRAWBERRY TICKETS. I print them. Write for samples. VENABLE, the printer, Upper Fairmount, Md.

BEST EXTENSION LADDERS made 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

MILK TICKETS a specialty. Samples free. BONDS PRESS, Middletown, N. Y.

UNLEACHED—Ashes. GEORGE STEVENS, Peterborough, Ontario.

Herein is a live new literature, when the man who owns the farm, lives on it and works it, shall write with direct experience and a full heart, giving us an artistic product.

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BY

JARED VAN WAGENEN, Jr.

Price of Illustrated Edition, $1.50

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HOMESPUN TOBACCO Chewing—5 lbs., $1.25; 10 lbs., $2.50; 20 lbs., $4.50. Smoking—5 lbs., $1.25; 10 lbs., $2.00; 20 lbs., $3.50. FARMERS' UNION MAYFIELD, KY.

How Much Is A Bunch?

Marketing Problems That Farmers Have To Face

IN most business buying and selling is done on a basis of a measured quantity. This can hardly be said of the bunch crops—radishes, beets, carrots and the like. On some markets, custom has fairly well established certain counts, sometimes varying with the season. Beets may start at three per bunch and later be increased to four or more, the size of the roots increasing at the same time. Incidentally, quality is likely to diminish and the skillful buyer is willing to accept smaller roots which show evidence of rapid growth. Trouble arises when the market begins to be over-supplied. The less skillful salesmen tend to tempt the trade, not by cutting the price per dozen, but by increasing the size of the bunches. It is not long until the situation is hopelessly tangled and a purchase virtually become a matter of "this many for so much." Just how the problem can be solved is a question. A strong organization would be able to accomplish something but market gardeners are hard to organize because they compete so directly with each other. It would be very difficult to establish legal standards, because it would be hard to draw specifications that would hold water. Who has an idea as to the way out?—PAUL WORK.

MARKET FOR BROWN EGGS

Will you please give me some advice relative to a market for brown eggs? Are there any cities where brown eggs are much in demand? Please send me the names of commission merchants in such cities.—F. A. CONERO, Forestville, N. Y.

Of late the New York market has been especially good for brown eggs. During the second week in March, the New York quotations on brown eggs, were higher than those for whites of the same quality, a thing which has not happened in years. Usually Boston shows some preference for brown eggs over whites. The discrimination against brown eggs in the New York market has been gradually disappearing in the last few months.

Under separate cover we are sending you a list of the licensed and bonded commission merchants which farmers may obtain by writing the Department of Farms and Markets, either at Albany, N. Y. or 90 West Broadway, New York City.—H. H. J.

SELLING POTATOES COOPERATIVELY

I have a lot of potatoes on hand for which I have no sale. A number of us farmers can easily get a carload together and ship if only we had a market for them. We would greatly appreciate it if you would inform us of one or two receiving houses.—ANDREW GRIEBEL, Lucinda, Pa.

The most convenient market to you, of any size, would be Pittsburgh, and the following produce dealers may undoubtedly be able to handle your crop. The men mentioned, handle potatoes and are well rated in the wholesale produce trade: Chester Frazell, Pennsylvania Produce Yards; C. C. Spencer, 1810 Pike Street; Free Bros. Co., 42-44 18th Street.

Before you ship it would be best that you write to each of these three firms, giving them an idea of the number of you men who will make up a car of white potatoes. Ask them when they would like your car to arrive. Then in a cooperative way, you can load your car and forward them on consignment. Under the date of writing the Pittsburgh market is better than the New York City market. Furthermore, you will save freight by shipping to Pittsburgh.—H. H. J.

BEST TIME TO MARKET BROILERS

Will you please give me some information relative to raising broilers for the Thanksgiving and Christmas trade? Can you tell me whether there is much demand for them at that time? Also what the usual price is?—H. S. HAZEN, Mercer, Pa.

The best periods in which to sell broilers are between the first of February and the middle or last of April, the month of June, and especially just before July 4.

Last year there was a very heavy supply of all kinds of poultry from the west, including broilers and young chickens from the first of October on, the prices were lower between Thanksgiving and Christmas, than at almost any other time during the year. There is no special demand for broilers at Thanksgiving time and but little extra demand at Christmas. There is a little more at New Year's. We would advise you to try to produce broilers for the Fourth of July market, or for the early spring market. Last year at Christmas time broilers and young chickens brought from 16 to 21c, colored, 20 to 21c, Leghorns, 16 to 18c.—H. H. J.

GRADING EGGS FOR BEST PRICES

Will you please give me some information about grading my eggs? I ship about five cases a week from my own hens and I have not been able to learn much about grading them. I have the Cornell Reading Course bulletin on marketing eggs, but I don't know how the different grades, as outlined by Cornell, are quoted in the market reports. Mine are all white eggs of Hennery quality and so far I have made two grades of them, over and under 2 ounces. Would it pay me to candle my eggs? Where can I get new flats, fillers and cushions and is there any advantage in using new cases? Where can one buy new knocked down cases? Second-hand cases cost me 19½c landed here by getting 200 at once.—F. W. SLY, Woodhull, N. Y.

In the issue of the American Agriculturist of January 27, there was an article which answers most of your questions relative to the meaning of the grade terms used in the wholesale egg trade. It is doubtful whether it would pay you to candle your eggs at this time of the year especially. Candling is more necessary where you are troubled with blood spots, or interior defects or when eggs are collected from a variety of uncertain sources. Where the quality is strictly fresh and the eggs are promptly gathered and forwarded, it is not always worth while to candle.

Assorting eggs as to size and color is always desirable. Prompt shipment is essential.

The firm of Potter & McAuliffe, at Whitney Point, N. Y., can give you quotations on new cases, knocked down and on new flats and fillers. The customary charges for good sound, second hand cases, shipped from New York City, is 10 cents each, F. O. B. New York. If you use only clean, strong cases, and see that they are properly nailed and strapped as required by the express company, you probably get nearly as good results as shipping in new cases, but we would urge you to use only fresh flats and fillers.—H. H. J.

Is the American Home Slipping?

(*Continued from page* 330)

sening their opportunity to make their own home.

It is because I feel so strongly that every effort must be made to emphasize the importance of the home and home-making, I am an enthusiastic supporter of the Home Bureaus. I feel that they are doing much to dignify the greatest and most worth-while profession in the world in bringing to women a better appreciation of their fundamental job. They should be better understood and used.

Next week, or in an early number of American Agriculturist, if the editor will allow me, I shall tell you what the Home Bureaus are and what they are trying to do, as I see it from a man's standpoint. In the meantime I challenge all the feminine curiosity in American Agriculturist's 125,000 homes to guess who I am. Anyway, you can relieve your feelings by writing me care of the Agriculturist, and the editor will give me your letters.

Another troublesome little express claim for broken eggs was recently settled by the American Agriculturist in behalf of Mr. Anaus Jensen of Gorham, N. Y. A reliable New York commission house made an affidavit that the eggs were received badly broken, and upon filing a claim the express company settled without more delay.

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shennandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437
Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

The Valley of the Giants—*By Peter B. Kyne*

THE Colonel puffed thoughtfully for a while—for which the Mayor was grateful, since it provided time in which to organize himself. Suddenly, however, Pennington turned toward his guest.

"I hadn't anticipated discussing this matter with you, Poundstone, and you must forgive me for it; but the fact is I am very greatly interested in this proposed railroad."

"Indeed! Financially?"

"Yes, but not in the financial way you think. If that railroad is built, it will have a very disastrous effect on my finances."

"I am amazed, Colonel."

"You wouldn't be if you had given the subject very close consideration. When my own timber is logged out, I will want other business for my road, and if the N. C. O. parallels it, I will be left with two streaks of rust on my hands."

"Ah, I perceive."

"You agree with me, then, Poundstone, that the N. C. O. is not designed to foster the best interests of the community."

"Well, Colonel, you are quite right."

"Of course I am right. I take it, therefore, that when the N. C. O. applies for its franchise to run through Sequoia, neither you nor your city council will consider the proposition at all."

"I cannot, of course, speak for the city council——" Poundstone began, but Pennington's cold, amused smile froze further utterance.

Poundstone studied the pattern of the rug, and Pennington, watching him sharply, saw that the man was distressed. Then suddenly one of those brilliant inspirations which had helped so materially to fashion Pennington into a captain of industry, came to him.

"Let's not beat about the bush, Poundstone," he said with the air of a father patiently striving to induce his child to tell the truth, and save himself from the parental wrath. "You've been doing business with Ogilvy; I know it and you might as well admit it."

Poundstone looked up, red and embarrassed. "If I had known——" he began.

"Certainly, certainly! I realize you acted in perfect good faith. You're like the majority of people in Sequoia. You're all so crazy for rail-connection with the outside world that you jump at the first plan that seems to promise you one. Have you promised Ogilvy a franchise?"

THERE was no dodging that question. Poundstone could not guess just how much the Colonel really knew, and it would not do to lie to him. Poundstone only knew that Ogilvy could never be to him such a powerful enemy as Colonel Seth Pennington; so he chose the lesser of two evils.

"The city council has already granted a temporary franchise," he confessed.

Pennington sprang furiously to his feet. "Dammit," he snarled, why did you do that without consulting me?"

"Didn't know you were remotely interested." Now that the ice was broken, Poundstone felt relieved and was prepared to defend his act vigorously. "And we did not commit ourselves irrevocably," he continued. "The temporary franchise will expire in twenty-eight days—and in that short time the N. C. O. cannot even get started."

"Have you any understanding as to an extension of that temporary franchise, in case the N. C. O. desires it?"

"Well, yes—not in writing, however. I gave Ogilvy to understand that an extension could readily be arranged."

"Any witnesses?"

"I am not such a fool, sir," Poundstone declared with asperity. "I had a notion—I might as well admit it—that you would have serious objection to having your tracks cut by a jump-crossing at B and Water streets." And to justify himself and inculcate in Pennington an impression that the latter was dealing with a crafty mayor, Poundstone smiled knowingly. "I repeat," he said, "that I did not put it in writing." He leaned back nonchalantly and blew smoke at the ceiling.

"You oily rascal!" Pennington soliloquized. "You're a smarter man than I thought. You're trying to play both ends against the middle." He recalled the report of his private detective and the incident of Ogilvy's visit to young Henry Poundstone's office with a small leather bag; he was more than ever convinced that this bag had contained the bribe, in gold coin.

"Ogilvy did business with you through your son Henry," he challenged. Poundstone started violently. "How much did Henry get out of it?" Pennington continued brutally.

"Two hundred and fifty dollars retainer, and not a cent more," Poundstone protested virtuously—and truthfully.

"Two hundred and fifty dollars! Poundstone, you're funny. Upon my word, you're a scream." And the Colonel gave himself up to a sincerely hearty laugh. "You call it a retainer," he continued presently, "but a grand jury might call it something else. However," he went on after a slight pause, "let's get down to brass tacks. How much do you want to deny the N. C. O. not only an extension of that temporary franchise but also a permanent one when they apply for it?"

Poundstone rose with great dignity. "Colonel Pennington," he said, "you insult me."

"Sit down. You've been insulted that way before now. Shall we say one thousand dollars per each for your three good councilmen and true, and for yourself that sedan of my niece's? It's a good car. Last year's model, but only run about four thousand miles and in tiptop condition. It's always had the best of care, and I imagine it will please Mrs. P. immensely. Of course, I will not give it to you. I'll sell it to you—five hundred down upon the signing of the agreement, and in lieu of the cash, I will take over that jitney. Then I will employ your son Henry as the attorney for the Laguna Grande Lumber Company and give him a retainer of twenty-five hundred dollars for one year. I will leave it to you to get this twenty-five hundred dollars from Henry and pay my niece cash for the car."

For the space of a minute the Mayor weighed his son's future as a corporation attorney against his own future as mayor of Sequoia—and Henry lost.

"It might be arranged, Colonel," he murmured in a low voice—the voice of shame.

"It is already arranged," the Colonel replied cheerfully. "Leave your jit at the front gate and drive home in Shirley's car. I'll arrange matters with her."

RIDING home that night in Shirley Sumner's car Mrs. Poundstone leaned suddenly toward her husband, threw a fat arm around his neck and kissed him. "Oh, Henry, you darling!" she purred.

"Oh, go to the devil!" he roared angrily. "Shut up and take your arm away. Do you want me to wreck the car before we've had it an hour?"

Colonel Pennington had little difficulty in explaining the deal to Shirley, who was sleepy and not at all interested. The Poundstones had bored her to extinction, and upon her uncle's assurance that she would have a new car within a week, she thanked him and retired. Shortly thereafter the Colonel sought his own virtuous couch and prepared to surrender himself to the first good sleep in three weeks. "Luckily I blocked the young beggar from getting those rails out of the Laurel Creek spur," he mused, "or he'd have had his jump-crossing in overnight—and then where would I have been?"

He was dozing off, when a sound smote upon his ears. Instantly he was wide awake, listening intently.

Suddenly, out of the deep, rumbling diapason he heard a sharp click—then another and another. He counted them—six in all.

"A locomotive and two flat-cars!" he murmured. "And they just passed over the switch leading from the main-line tracks out to my log-dump. That means the train is going down Water Street to the switch into Cardigan's yard."

With the agility of a boy he sprang into his clothes, raced downstairs, and leaped into Mayor Poundstone's jitney, standing in the darkness at the front gate.

CHAPTER XXVI

THE success of Bryce Cardigan's plan for getting his rails down from Laurel Creek depended entirely upon the crew of the big mogul. Should the engineer and fireman decide to leave the locomotive at the logging-camp for the night, Bryce's task would be simple. On the other hand, should they run back to Sequoia with the engine, he and Ogilvy faced the alternative of "borrowing" it.

Throughout the afternoon, after having sent his orders in writing to the woods-boss, via George Sea Otter (for he dared not trust to the telephone), he waited in his office for a call from the logging-camp. Finally, at a quarter of six, Curtis, his woods-boss, rang in.

"They're staying here all night, sir," he reported.

"House them as far from the log-landing as possible and organize a poker-game to keep them busy in case they don't go to bed before eight o'clock," Bryce ordered. "In the meantime, send a man you can trust down to the locomotive to keep steam up until I arrive."

He had scarcely hung up, when Buck Ogilvy came into the office. "Well?" he queried casually.

"Safe-o, Buck!" replied Bryce. "How about your end of the contract?"

"Crowbars, picks, shovels, hack-saws to cut the rails, lanterns to work by, and men to do the work will be cached in your lumber-yard by nine o'clock."

Bryce nodded his approval. "Then I suppose there's nothing to do but get a bite of dinner and proceed to business."

Buck insisted on keeping an engagement to dine with Moira, and Bryce agreed to call for him. Then Bryce went home to dine with his father. Old Cardigan was happier than his son had seen him since his return.

"Well, sonny, I've had a mighty pleasant afternoon," he declared as Bryce led him to the dining-table. "I've been up to the Valley of the Giants."

Bryce was amazed. "Why, how could you?" he demanded. "The old skid-road is impassable."

"Not a bit of it," the old man replied. "Somebody has gone to work and planked that old skid-road and put up a hand-railing on each side, while the trail through the Giants has been grubbed and smoothed over."

"How did you discover this?" Bryce demanded.

"Judge Moore, representing the new owner, called round this morning. He said his client knew the property held for me a certain sentimental value, and so the Judge had been instructed to have the skid-road planked and the forest trail grubbed out—for me. It appears that the Valley is going to be a public park, after all, but for the present, it is my private park."

"This is perfectly amazing, partner."

"It's mighty comforting," his father admitted. "Guess the new owner must be one of my old friends. Remember the old sugar-pine windfall we used to sit on? Well, it's rotted through, but the new owner had a seat put in there for me, a lumberjack's rocking-chair. I sat in it, and the Judge left me, and I did a right smart lot o' thinking. And while it didn't lead me anywhere, still I—er——"

"You felt better, didn't you?" his son suggested.

John Cardigan nodded. "I'd like to know the name of the owner," he said presently. "I'd like mighty well to say thank you to him."

Buck Ogilvy came out of the restaurant with Moira, just as Bryce, with George Sea Otter at the wheel of the Napier, drove up to the curb. They left Moira at her boarding-house, and rolled noiselessly away.

At nine o'clock they arrived at Cardigan's log-landing and found Jim Harding, the bull-donkey engineer, placidly smoking his pipe in the cab. Bryce hailed him.

"That you, Jim?"

"You bet."

"Run up to Jabe Curtis's shanty, and tell him we're here. Have him gather his gang and bring two pairs of overalls and two jumpers—large size—with him when he comes."

Harding vanished into the darkness, and Buck Ogilvy climbed up into the cab and glanced at the steam-gauge. "A hundred and forty," he announced. "Good enough!"

PRESENTLY the woods-boss, accompanied by thirty of his best men, came down to the log-landing. They clambered aboard the engine and tender, hanging on the steps, on the roof of the cab, on the cow-catcher—anywhere they could find a toe-hold. Harding cast aside the two old ties which the engine-crew had placed across the tracks as additional precaution; Buck Ogilvy cut off the air; and the locomotive and tender began to glide slowly down the almost imperceptible grade.

At the junction with the main line Buck backed briskly up into the Laguna Grande woods, and coupled to the two loaded flat-cars. The woods-gang scrambled aboard the flats, and forty minutes later they rumbled down Water street and slid to a grinding halt at the intersection of B Street.

From the darkness of Cardigan's drying-yard, twenty picked men of the mill-crew now emerged, bearing lanterns and tools. Under Ogilvy's direction the dirt promptly began to fly, while the woods-crew unloaded the rails and piled them close to the sidewalk.

Suddenly a voice, harsh and strident with passion, rose above the thud of the picks and the clang of metal.

"Who's in charge here, and what in blazes do you mean by cutting my tracks?"

Bryce turned in time to behold Colonel Seth Pennington leap from an automobile and advance upon Buck Ogilvy. Ogilvy held a lantern up to the Colonel's face and surveyed Pennington calmly.

"Colonel," he began with exasperating politeness, "—I presume you are Colonel Pennington—my name is Buchanan P. Ogilvy, and I am in charge of these operations. I am the vice-president and general manager of the N. C. O., and I am engaged in the task of making a jump-crossing of your rails. I had hoped to accomplish this without your knowledge or consent, but now that you are here, that hope, of course, has died a-bornin'. Have a cigar." And he thrust a perfecto under the Colonel's nose. Pennington struck it to the ground, and on the instant, half a dozen rough rascals emptied their shovels over him. He was deluged with dirt.

(*Continued on page* 347)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

BRYCE CARDIGAN and Buck Ogilvy are determined that that jump-crossing shall go in. Colonel Seth is equally determined that it shall not. A battle royal is in progress, Bryce and Buck having outwitted the Colonel by obtaining a franchise, the Colonel being the stronger, however, both in finances and because he is utterly unscrupulous.

Shirley fights fairly, and is just beginning to suspect her uncle's methods in protecting their joint interest. She has managed to maintain her friendship with Bryce and also with Moria MacTavish, his office aide, with whom redheaded Buck has fallen deliriously in love. Through Bryce, Shirley obtains a dictograph to overhear the secret conversation of her uncle and Mayor Poundstone.

Give a thought to Advertising

There's more to advertising than advertisements. What you see in the newspapers and magazines is only part of the business. A very important part, but by no means all of it. For it does no good to create a desire for any product with the buying public if they can't get that product when they go to their store. The dealer, the storekeeper must also be convinced of the merit of the product and also that there will be a demand from the buying public for it. So advertising falls into two main branches. The first is to persuade the dealer to stock the product and the second is to tell the public about the product's advantages so that they will go to the store and buy it.

Every week in the American Agriculturist you see advertisements of different products—lots of them. You see many things that you would like to have and decide to get the next time you stop at your store. The fact that the advertisement appears in the American Agriculturist is proof that the product's all right and this factor plays no small part in making your decision. But how would you feel if you went to your dealer determined to get this or that product and he informs you that he never heard of it, and doesn't stock it? Naturally you would be disappointed; you would feel in a way cheated. Probably you could send directly to the manufacturer and order the product, but that is more or less trouble.

The manufacturers who advertise in the American Agriculturist also are making efforts to sell their products to the dealers of New York State, both by advertising and with salesmen. But they don't reach them all. And that's where we decided to do our bit. For the aim of the American Agriculturist is to serve the farmers of New York State in every possible way. And if our readers see an advertisement in our columns of some product that they would like to get, we want them to be able to stop at their store and find it there.

So we decided to establish a new service. Sort of a handy man to help the Magazine itself. So every now and then we get out a little booklet which we appropriately call "The Hired Man." Its work is to do some of the chores that the American Agriculturist can't do itself. "The Hired Man" goes directly to the dealers in the State. It tells them which manufacturers are advertising in the American Agriculturist and the advantages of their products. In this way every dealer is advised before-hand of products that there is certain to be a demand for, because of advertisements appearing in the American Agriculturist. Then when a reader wishes to buy any of the things he has seen advertised, he will be more likely to find them at his dealer's. So, though "The Hired Man" doesn't go directly to our readers, still it is working for them all the time and is another evidence of the desire of the American Agrculturist to be of assistance to the farmers of New York.

Advertising Manager

The Passing of a Great Farm Industry

(*Continued from page* 331)

the young, women and children, the respectable and the riff-raff reported for the picking. Special trains brought in hundreds from the city. On the Pacific Coast the Indians, the Japanese and the Chinese did most of the work.

Some growers would hire only decent folks, and the harvest would be safe and sane. In other cases, most scandalous abuses occurred because of the social freedom of the "yard" and "house." When the day's work was over, the devil got his inning. The "hop digs," or dances, sometimes lasted until morning. Drinking was common. And at its worst, the hop-picking season brought brutal fights and murder. Men lost their sense of manhood and women lost their virtue.

At their best, hop pickings offered advantages. I personally know two couples, now long since married, who met in the hop yard and who have been happy and contented ever since. I know one woman who worked faithfully through the season in order to buy a set of false teeth that cost ten dollars. It was a source of cash income for many poor families.

The Material Side

A pile of money was spent on the crop. Setting the yard, buying the poles, the wire and string; grubbing, tying and cultivating; sulphuring, picking and curing; pressing and marketing demanded more expenditure than most any field field crop you can think of. One grower said that his twine alone cost $1,000. Often a grower would have invested several thousands in kilns, boxes, presses, etc., and more thousands in the new crop in the form of fertilizer and labor, and didn't know whether the price would be six or sixty cents per pound. In one case he stood a chance to lose a small fortune and in the other case to make one. One grower sent his sons to college on hop proceeds, and the checks they got from Dad depended on the market price of the season's crop.

The main reliance of the hop grower was the brewers' demand. It has been said that the Volstead Act caused a material loss of two billion dollars to brewers, distillers and saloon-keepers. No one has apparently thought of the millions lost to hop growers, who have sacrificed expensive yards, spray rigs, kilns and all that went with the industry. Often they themselves haven't thought of it in that way.

As a reliable source of farm income, hops have always been an unreliable crop. I have before me a list of 43 men who were intimately connected with hops. Here are some of their comments: "Just about come out even," "Millionaires one day and paupers the next because the money came all at once," "Took all the cows produced to pay the pickers," "Man that never raised hops came out ahead."

A writer has said in regard to fertilizing the crop: "The amount of manure should be all one can possibly afford, and then a little more." And that is just what they did; invested heavily in material and labor, spent a little more than they had and trusted to luck to come out ahead of the game. A few made money, but the great mass of growers lost.

The Moral Issue

How about the good church men, the elders, the deacons and the prohibitionists who raised hops to make beer? There was a moral issue apparent, and there were a few men who calmly refused to have anything to do with this crop, the acknowledged purpose of which was to give the deliciously bitter flavor to an intoxicating drink that was steadily growing in consumption. On the other side, there were apparently good Christian men who liked their bottle and who refused to let the left hand know what the right hand did. Many hop growers, I think, failed to consider the final use of hops. They recognized the crop as having possibilities for profit. They did not try to reconcile their feelings toward their industry and toward temperance. There were many who wouldn't drink and who wouldn't desire their children to do so.

No state in our country ever had so many hops as New York, and no county stuck to their raising with more stubborness than Schoharie. Now those glorious days are gone. Hop houses are going to ruin, the cowls idly yield to the wind, the duster is rusting and the picking boxes falling to pieces.

From a material standpoint, we can rightly say that the loss of hops was not a real loss. In their place have grown up such parts of the farm business as dairying, potato growing, alfalfa culture, which are much more substantial and much less speculative. The hop industry was built on the sands and the irresistible flood-tide of pubic opinion washed it away.

Any industry of the world will sooner or later be measured by its contribution to the welfare or happiness of humanity. Weighed in this scale, hops were found wanting. It is sad to contemplate the fact that men gave their lives and fortunes to a thing that had no real usefulness in the world. The hop industry has fallen forever from its high estate, and few there are to mourn its fall.

Within a few years we shall almost have forgotten that hops once grew so thick that a man might travel for 40 miles and never be out of sight of a "field like a forest." There will be a few old folks to tell us stories of "hop-loops," and record yields and prices of a dollar a pound. There will be found a few stray vines in neglected corners near the woodlot. A vine or two may be trained at the rear of the farm house, and the product used for "hop tea." In its own language, the industry "hopped out" with great promise until the auctioneer of time and conditions struck it off with the words, "going, going off, gone."

The Valley of the Giants

(*Continued from page* 346)

"Stand back, Colonel, if you please. You're in the way of the shovellers," Buck Ogilvy warned him soothingly.

Bryce came over, and Pennington choked with fury. "You—you——" he sputtered, unable to say more.

"I'm the N. C. O.," Bryce replied. "Nice little fiction about the switch-engine being laid up and the Laurel Creek bridge unsafe for this big mogul."

"You've stolen my engine," Pennington almost screamed. "I'll have the law on you for grand larceny."

"Not to-night, at least," Bryce retorted gently. "Having gone this far, I would be a poor general to permit you to escape now. You'd be down here in an hour with a couple of hundred members of your mill-crew. You will oblige me, Colonel Pennington, by remaining exactly where you are!"

To Bryce's infinite surprise the Colonel smiled. "Oh, very well!" he replied. "I guess you've got the bulge on me, young man. Do you mind if I sit in the warm cab of my own engine? I came away in such a hurry I quite forgot my overcoat."

"Not at all. I'll sit up there and keep you company."

Half an hour passed. An automobile came slowly up Water Street and paused half a block away, evidently reconnoitering. Instantly the Colonel thrust his head out the cab window.

"Sexton!" he shouted. "Cardigan's cutting in a crossing. Get the mill-crew together and phone for Rondeau and his crew. Send the switch-engine and a couple of flats up for them. Phone Poundstone. Tell him to have the chief of police——"

Bryce Cardigan's great hand closed over the Colonel's neck, while down Water Street a dark streak that was Buck Ogilvy sped toward the automobile, intending to climb in and make Pennington's manager a prisoner also. He was too late, however. Sexton swung his car and departed at full speed down Water Street, leaving the disappointed Buck to return panting.

Bryce Cardigan released his hold on Pennington's neck. "You win, Colonel," he announced. "No good can come of holding you here any longer. Into you car and on your way."

"Thank you, young man," the Colonel answered, and there was a metallic ring in his voice. He looked at his watch in the glare of a torch. "Plenty of time," he murmured. "Curfew shall not ring to-night."

(*Continued next week*)

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A Whole Page of Ideas For the Home Makers

Clothes, Health and Hobbies are all Considered, while Aunt Janet Talks to Older Women

A HOBBY, often recommended for the "tired business man," has an equal or greater value for the middle-aged woman. She it is who may become a hypochondriac unless some new interest comes into her daily life.

To many a woman of middle age has come her first vacation period in twenty or more years; her children are grown up and away from home, her housekeeping cares have greatly diminished, her busy earlier years have so shut her off from church and community activities that she must make a real effort to get back into the swing. Then, too, she has probably had little time for self-improvement or study.

Times change rapidly, and she, in her busy and confining home life, has not kept pace with events. This is the dangerous time, for her interest and attention are likely to be turned in upon herself. Without a new absorbing interest, she becomes self-centered and morbid.

Who Knows this Person?

We have all known such women, nervous, semi-invalids who enjoy talking of real or imagined ills. "I caught such a terrible cold last week, and it settled on my chest until I almost had pneumonia." "The doctor says I have kidney trouble, and bladder trouble, and liver trouble, and rheumatism, and sometimes indigestion, and that's enough for any one woman." "I'm taking two kinds of medicine now," etc., etc., ad nauseam.

Sometimes there really is genuine illness, but many times the aches and diseases are mainly fancied. The college-bred daughter, with a knowledge of psychology, may understand the situation and suggest a "mind cure," but poor mother only feels that she is misunderstood, and that daughter is unsympathetic, and draws closer in to her shell of self-pity.

To such women an absorbing hobby may come as a life-saver in very truth. All her life she has probably had some unsatisfied longing—to paint, to collect moths, or to study music. Only the other day an acquaintance confided, "I am a natural born poet, but had to leave school when I was in the fourth grade and never could study any more." Now, at fifty, she has the spare time. She is not very likely to become a poet laureate, but she will get an unlimited amount of pleasure from trying to write.

Try a Correspondence Course

No woman in possession of her faculties is too old to undertake some new interest. One middle-aged woman I know is part way through her third correspondence course. She is not only keeping her spare hours fully occupied with congenial work, but she has no time to think whether she feels ill or not. She is benefiting physically and mentally, and, incidentally, in a small financial way also.

A correspondence course has the advantage over a course of study undertaken unaided, of giving an outside stimulus which prevents one becoming discouraged and abandoning the work. The necessity of sending in lessons at frequent intervals and the inspiration derived from a bracing comment or word of praise from the teacher, will spur one on to continue, and even to attain, some prominence in the chosen line.

Consider What Others Have Done

"Oldsters" have many surprising possibilities hidden away under their gray-hair. George Eliot wrote her first novel while in her forties; Mrs. Amelia E. Barr was fifty and ill when she produced her first novel, and had written over fifty between that time and the age of eighty-seven. S. Weir Mitchell wrote three historical novels between the ages of sixty-seven and seventy-nine. William De Morgan took up literary work late in life, and produced four novels in the three years after he was sixty-seven.

Similar accomplishments could be cited in other lines of endeavor, and any woman, whatever her age, may well feel encouraged to start in at once on whatever has been her most cherished ambition.

Contentment will come and straddle the home ridgepole for aye!—VINCY PRESTON LOOPS.

QUICK ORANGE FROSTING

After baking a cake one day, I noticed a lonely orange on the pantry shelf, and I thought some orange frosting would taste good, so I made up a recipe which was so delicious that I am passing it on to others:

Boil together the juice of one orange and one cup of sugar until it hardens when dropped into cold water. Then pour it slowly into the stiffly beaten white of one egg, stirring all the time. Beat until smooth and spread on cake. If a stronger orange flavor is desired, add a little grated peel.

Before beating an egg white, I always add a pinch of salt and one tablespoon of cold water. This insures a quick whip, and nearly doubles the amount of white.—LULU A. CAMP.

A NOVEL SWEATER TO MAKE

A sweater especially designed to suit the older woman's figure is this, and it has lines which make it unusually becoming. The sleeves are comfortably loose; the skirt portion is fulled over

the hips, the waistline is low and marked only by a narrow drawstring belt.

The original sweater was made in blue, with gray angora trimming. Purple, black, a dull rose or dark gray would all be suitable for the sweater.

Directions for making will be sent for 12c in stamps. Address your order to Fashion Editor and ask for design E1.

Next week we will show one of the new sleeveless tuxedo sweaters for the younger woman.

AUNT JANET APPROVES OF HOBBIES

Dear Nieces:

What is a hobby and why?

That is a double-barreled question that farm women might well think over. Too many of us think of a hobby as the idle-hour pastime of some city millionaire—collecting Chinese vases or raising expensive toy dogs. A hobby need not be a costly luxury—indeed, it may be a veritable life-saver for the country woman as well as for her more leisurely city sister.

A hobby is simply a way of letting off steam. Steam which cannot escape explodes. Even children need a hobby; it may change as they grow older, or they may develop it along better lines. But usually we think of a hobby as the outlet by which some full-grown man or woman allows accumulating steam to escape.

Mrs. Loops—you will find her article on this page—has some pertinent things to say about the especial value of a hobby to the woman just verging on middle life; the one who has perhaps lost the first enthusiasm of youth which transfigures homely tasks and not yet gained the philosophic calm of old age. She knows whereof she speaks.

What hobbies have you found fun and profit, too—you busy farm women who still manage to catch a few hours a week for that important outside interest? The rest of us would like to hear about your hobbies, big and little.

Yours,

Aunt Janet

IS YOUR CHILD BEING CHEATED

JEAN HENRY

Child Health Organization

PEOPLE first began to be civilized when they hit upon means of measuring things—wheat, oil, cheese, skins.

And with the bartering of so many pounds of this, for so many pounds of that, came two things into the minds of people. One was the desire to give as little as possible and the other was to get as much as possible. Since then the human race has been trying to keep itself honest. Those who buy have always had to check those who sell.

And in that way scales came to be one of the most important of the tools of civilization.

There are scales in the barn, scales in the kitchen, scales in the grocery, scales at the elevators, scales at the railway stations. No one takes another's word for the weight of the hay, of the sugar, of the flour, of the grain, of the cabbages. Every man is resolved not to be cheated, but—

Are there scales in the school house? Do you know whether your children are being cheated of life?

It is perfectly true that life and health can be measured in pounds. Accurate tables have been worked out showing just how many pounds Mary, aged eleven, should weigh for her height, and how many pounds Bill, aged eight, should weigh.

"Mary? Why, she's doing nicely," you think. "Of course, she hasn't been quite as round and rosy as her cousin of the same age over at Hillsboro, but she's at the growing age."

Just think a minute. Since Mary began to grow so thin last fall, haven't you noticed that she's terribly fretful at times? Remember what a good child she always had been. Now she quarrels with Bill and complains about helping with the dishes.

A Few Pounds Make a Big Difference

Just to look at Mary you would say she weighs ten pounds less than her cousin Sue. And those ten pounds that she lacks—what do they represent?

They represent her present health, her future growth, her mental development.

Is Mary to be cheated of these ten precious pounds?

Of course not, if you know about it. But how can you know whether Mary's weight is the proper amount for her height unless she is weighed regularly? Mary is growing rapidly.

If there were some one who would weigh the children regularly! It is so hard to attend to things like that at home. Why not the school?

If there are scales in every school where the children are weighed regularly once a month, you and all the parents of your district will know whether your children are being cheated of the abundance of life and health to which they are entitled.

Scales are truly one of the most important of the tools of civilization.

You can interest the other women in your district in putting into the school-house this all-important tool, and keep up the interest in its use. A mother and a father should be as keenly interested in the child's monthly weight increase as in his grade in arithmetic. Both may go up at the same time.

The children themselves will be absorbed in the game. When Mary steps onto the scales next month and finds that she is two pounds nearer "her number," she'll begin to look forward with keen joy to piling her record up faster than the others month after month.

TWO SMART SPRING DRESSES

FIRST, a dress for the heavier materials, twill, or silk, or satin. The ever-popular navy blue or medium gray, with black trimming and a smart buckle to add style, would be excellent for **No. 1645.** You can make it with the flared sleeves and long front panel shown in the larger picture, or with the close sleeve and plain side closing illustrated in the smaller one. This

pattern is excellent for its adaptability, as it can be used in a variety of ways, simple or elaborate.

No. 1645 cuts in sizes 34, 36, 38, 40, 42, 44 and 46 inches, bust measure. In the 36-inch size this style requires 3½ yards 40-inch material, with 1⅛ yards 32-inch contrasting. **Price, 12 cents.**

Then comes a frock of distinctly new design. The dropped waistline, popular "jacquette" closing and one-piece gathered skirt are all features of the new mode. **No. 1718** is suitable for a cool figured voile, for a printed foulard, or for a gay Egyptian crêpe. Or it could

be made of plain material and one of the new and riotous oriental designs used for trimming.

No. 1718 comes in sizes 16 years, 36, 38, 40 and 42-inch chest, bust measure. Size 36 requires 3⅝ yards 36-inch material, with ⅝ yard contrasting. **Price, 12 cents.**

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Our Spring Book of Fashions, containing all the new models for the coming season, is ready. In addition to over 300 patterns, there are pages of embroidery designs, styles worn by movie stars, and dressmaking lessons to help the beginner. The price is 10 cents a copy. Address your order to Fashion Department, American Agriculturist, 461 Fourth Avenue, New York.

Popular Candy Recipes

Mabel F. Mitchell Gives Some Which Use Molasses

A FEW weeks ago we gave recipes on the use of molasses in cookies and bread. But it is perhaps even better used as an ingredient for delicious home-made candies, and the following recipes should be extremely popular.

Peanut Candy

One pint of molasses, juice of one-half lemon; one and one-half cups of peanut meats; one tablespoon butter. Boil the molasses, lemon juice and butter, and when it forms a hard ball in cold water, remove from stove and beat, adding the nuts. Cut in squares before real cold.

Chocolate Marshmallow Candy

One cup molasses; 2 ounces grated chocolate; 1 cup thin cream; ½ teaspoon vanilla; ½ cup brown sugar, or corn syrup; ½ teaspoon soda; 1 dozen marshmallows. Boil molasses, sugar, chocolate and cream to the hard ball stage, then add soda and vanilla and beat thoroughly. Just before taking from the stove, add marshmallows, cut into bits, and let stand on the back of the stove until they are melted, then beat well. Pour into greased pan and when cold cut into squares.

Butter Scotch

One cup sugar; ¼ cup molasses; 1 tablespoon vinegar; 2 tablespoons boiling water; ½ cup butter. Boil the ingredients until the crack or brittle stage. Pour into buttered pans about ¼-inch thick, and mark into squares while still warm.

Sorghum Pop-Corn Bars

Two cups sorghum; ½ cup thin cream; 1 pint popped corn. Boil molasses and cream to hard ball stage. Stir in the popped corn and mix well. Turn into a square or oblong pan well buttered, and press until flat on the top. Cut into bars when cold.

Plain Molasses Taffy

Two cups molasses;, ½ cup corn syrup. Boil to the crack stage, turn out into greased pan and when cool pull until light colored. Cut into various shapes with sharp scissors. Some add one tablespoon vinegar just before removing taffy from the stove. Others a half teaspoon cream tartar, which makes your candy whiter.

Pop-Corn Nut Brittle

One cup molasses; ½ cup brown sugar; ½ cup corn syrup; 2 quarts popped corn; 1 cup chopped peanuts. Boil molasses, syrup and sugar, to the crack stage. Stir in corn and nuts until all are covered with the mixture. This will sometimes press into shapes, and then be broken into various shapes and sizes, while at other times each kernel will be nicely coated. Good either way. This is also very nice poured over puffed wheat or rice, thus combining food with candy, and is good for the children. Marshmallows may also be dipped in this mixture and are delicious.

SAVE ON LABOR AND MATERIAL

Two neighbors decided last summer that it would be necessary to paint their homes. One house was colonial yellow, with white trimmings, and the other a white house with green blinds. In both cases the buildings were badly soiled and stained, but the paint itself was in fairly good condition.

Neighbor No. 1 tried an experiment. He hired a young fellow out of work to wash the outside of his house with soap powder, water and a scrubbing brush. As a portion was finished, it was rinsed with the hose. The results were so eminently satisfactory that Neighbor No. 1 decided that it was not necessary to spend a couple of hundred dollars in painting that year.

Neighbor No. 2, an energetic widow, employed the same young man to give the outside of her house a bath. The results were equally good. Both home owners then had a painter come and paint porch floors, steps, railings and pillars, and, presto! the houses looked so well that they will go through this summer nicely.

Paint saves the surface, and too heavy a coating is not desirable. Each family estimates that they have saved about $150 by the method described, for the next coat of paint will last so much longer.—EMMA GRAY WALLACE.

PRETTY PANSY FACES

Who does not admire the pretty pansy faces, with their varied markings? They laugh at us all summer long, in all climes and under all conditions.

Still pansies have very definite likes and dislikes. They like partial shade, coolness, and moisture. I have seen them growing in the hottest sun and blooming bravely, though the soil in which they were growing was poor and dry. This made them give small blooms, but they bravely did their best.

If you want big blooms of rich dark coloring, get a good strain and plant in a rich soil in partial shade, where tree roots do not sap the moisture. Give them plenty of water. They are like the voilet, natives of woody vales, where the soil is deep and mellow, and moisture is abundant. To get the best results you should give as near these conditions as you can, but don't give up your pansy faces if you cannot, for they make the best of conditions as they find them. The earlier you sow the seeds the finer flowers you will have.—RACHAEL RAE.

OUR MEDICAL QUESTION BOX

Dear Dr. West:

I am badly troubled with my feet, having pain constantly under the toes. My mother and grandmother had severe foot trouble before me and this pain frightens me.
MRS. R. W. G.

Bathe your feet night and morning, and sprinkle the parts under the toes that are so sore with a little pulverized tannin. Give your feet deep-seated massage every night, using a little olive oil and pressing and rubbing the bones thoroughly in order to quicken the circulation of blood through all the tissues.

Always wear good whole stockings (by that I mean none that are mended), and the best of cushioned footwear with good heavy soles.

* * *

My hair is very thin and oily, with split ends. Would massage help? So far it has had no effect. Does this result from any other trouble? MISS W. H. F.

Yes, the general condition has great effect upon the hair, which, as you know, springs from the nervous system. In your case the oil glands of the scalp are overactive. I would suggest that you trim the split ends regularly every week or two, and that you rub into the scalp every night the following tonic:

Quinine Sulphate, ½ dram; Chloralhydrate, ½ dram; Camphor, ½ dram; Oil of Cajeput, ½ dram; Oil of Bay, 1 dram; Alcohol enough to make 8 ounces.

* * *

I suffer greatly from sick headaches, have a yellow skin, become very dizzy and have a blur across my vision. I am not able to go anywhere to spend the day without returning with an attack. MISS A. M. E.

Yours is a clear case of billious headaches. You must be very careful of your diet. Do not partake of any foods containing white flour, any rich, heavy gravies, any made-over dishes. Confine yourself to bran and graham flours, to green vegetables (no potatoes, as they are too starchy). No tea or coffee, no dairy foods for the present. You may have lean meats. This seems a restricted diet, to which I will add an abundance of fruits, especially the juices of lemons, oranges and grape fruits. These juices have a particularly salubrious effect on the liver.

You should breathe deeply of fresh air all of the time, and should walk in every kind of weather from two to five miles daily, breathing deeply the while.

Wear some good gloves on your hands in the spring of the year when they are soft and tender, then you will not have the skin peeled off when you strike them unexpectedly.

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Reviewing the Latest Eastern Markets and Prices

MAPLE SYRUP PRICES UNCERTAIN

HERSCHEL H. JONES

BECAUSE of the extreme lateness of the maple sap production season this year, it seems likely that the crop will be considerably short of last year and prices consequently higher. Up to April 1, no sap had been drawn in Vermont and very little in New York State except in southern counties. A few large dealers have offered prices on new run syrup and sugar, but practically no business in new maple products has been done, and future prices are very uncertain.

As usual New York City quotations have little relation to the market. Miscellaneous farmer packed syrup at the commission houses, old crop, is selling in a small way at $1.60 to $1.70 per gallon, in gallon tins, and sugar at 25 to 30c a lb. The practice of farmers in New York and Vermont, of shipping their syrup and sugar to commission merchants in New York and Boston is one of the biggest factors in keeping producers from getting better prices for their syrup. This ungraded product of irregular quality sells at whatever blended syrup manufacturers are willing to pay for it. Although undesirable compared with a uniform product such as that of the Vermont Maple Products Cooperative Exchange or Maple Producers' Cooperative Association of New York, it enters into direct competition with the standardized product. These two organizations in the two biggest maple producing states of the country are making a fight for better grading, packing and marketing of maple products that deserves the support of every farmer with a sap bush.

SWEET POTATOES UP SLIGHTLY

The severe weather around April 1, tended to check sweet potato shipments somewhat and make a better market. New Jerseys sold last week at $1 to $1.65 per bu. hamper, the top price going only to best graded stock.

GOOD DEMAND FOR POTATOES

Because of bad roads up-State and growers holding for higher prices, 80c @ $1 per bu, the buyers in New York City are ordering potatoes from Wisconsin and Minnesota at prices ranging from $1.90 to $2 cwt. sacked, delivered. The market in the yards is steady and the dealers are optimistic.

Southern new potatoes are arriving in small quantities. Virginia Bliss Triumphs sold at $8 to 10 bbl. Florida Spaulding Rose in double headed barrels sold generally last week at $15 bbl for No. 1's. Bermudas No. 1's sold as high as $22 per bbl.

Out of the 434 cars of potatoes received at New York the last week in March, 191 came from Maine, 71 from Long Island, 90 from New York State and 28 from Wisconsin.

States bulk per 180 lbs in yards sold at $3.25 to $4 and Maines, up to $4.50 on April 6. Most of the shipments in the yards at end of last week were sacked western, showing a large amount of frost. The best of these sold at $2 to $2.75 per 150-lb. sack.

MORE SOUTHERN CABBAGE

Out of 77 cars of cabbage received at New York in the last week of March, only 11 came from New York State and 58 from Florida and South Carolina, 7 from California and 1 from Mexico. For really good old crop cabbage, however, the market was better the first week in April with prices at $25 to $30 a ton.

WESTERN APPLES HEAVY

Not only in New York City but right in cities in the heart of fruit growing sections, western boxed apples have lately been in heavier supply in trade channels than barreled apples. Out of 209 cars of apples received at New York the last week of March, 124 came from the West and only 68 from New York State and 17 from Virginia. The first week in April barreled apple receipts were also light and a large proportion showed scald and poor condition. The market was good for fancy barreled stock. Some of the Western winesaps of high color and attractive appearance now on the market have about as much flavor as a ball of sawdust.

Wholesale prices barreled stock, A grade 2½ inch at New York April 5, were:

	Best	Fancy	Ordinary
Baldwins	$5.75@6	$6.25@6.50	$4.50@5
Greenings	5.75@6	6.25@6.50	4.50@5
Ben Davis	3.75	4	3@3.50
N. Spy	11@12	12.50@13	

BUTTER ADVANCES AGAIN

In the middle of the first week in April, creamery butter went back up to the high level of two weeks or more previous. Creamery, higher score than extras, was quoted at 51½ to 52c lb., and extras at 50¾ to 51c on April 4, but on April 5 declined to 50 to 50½c for higher score and 49½c for extras, which was still about ½c ahead of the week previous. Whenever the top price reaches 51c there seems to be a check in buying and reaction down again.

New York has been just enough below the Chicago market to bring a large amount of out-of-town business, and shipments from here to other Eastern cities have been heavy. In addition to using up fresh receipts, the reserve stocks have been drawn on. On April 4 there were only 1,570,396 lbs. in public cold storage warehouses, or less than 25,000 packages.

It looks as though production would increase very gradually, due to the late spring, bad roads, etc.

EGG MARKET WEAKER

After the Easter trade was over, receipts of eggs fell off a little at New York, but the market became very weak and prices declined. On April 5 nearby hennery eggs were about 4c lower per dozen than a week previous. Prices were irregular and unsettled. State eggs as they run sold in round lots at 30c per doz., with many sales at less. Some fancy Jerseys sold at 36c, but the best selected Jerseys brought 38 to 39c. The top price for fanciest State and other nearby eggs was 38c. On the same date last year the top price on nearby hennery whites was 37c.

The total March receipts of eggs at New York of 980,934 cases broke all records. In the last 20 years, the nearest volume of March receipts to this year was in 1921, when there were 979,513 cases.

In spite of these heavy arrivals the movement into cold storage has been gradual. On April 4 there were only 105,543 cases in public cold storage at New York, compared with 217,234 cases same date last year. The total stored in the four largest markets was about one-third that of last year. Consumption of eggs increased enough this year, as prices went down to clean up the heavy March receipts fairly well. But a flood of eggs is expected this month, and prices tend rapidly toward what is called a "speculative level," that is, to the point where speculative buyers see a prospect of making money by putting eggs into storage. Some of these speculative buyers have been willing to pay 28c doz. for storage-packed by the carload and 27½c for less than carloads.

Pacific Coast whites, extras, sold April 5 at 35 to 35¾c. Fresh gathered extras (Middle West and Southern) sold at 30 to 31c. Duck eggs, selected, at 42 to 43c per doz.; goose eggs, $1 doz.

When you ship eggs in second-hand cases, be sure to remove all old markings of every description and pack with excelsior pads, new flats and fillers. Write your address plainly on the tags and state the number of dozen eggs in the crate either on end of crate or on a slip inside. It is safer to get tags from the receiver to whom you ship than to use cards of your own.

OVERSUPPLY OF LIVE POULTRY

New York was oversupplied with freight shipments of live fowls from the West last week. On April 5 prices were 5 to 7c lower on both freight and express shipments than the week before. Poor white Leghorn fowls had to be sold as low as 23c to move them. The holiday demand for fancy fat fowls practically ended with the Wednesday before Easter. From now on and during the summer the demand will be greater for light fowls than heavy.

Express shipments of broilers were in larger supply, trade was slower and prices gradually declining. The White Leghorn spring chickens received have been mostly too small for the best trade, and best prices are paid only for those over 1 lb. each. On April 5 Leghorn broilers, by express, sold at 55 to 65c each; colored broilers, 70c each.

Rabbits, live, 30 @ 32c lb.; pigeons, per pair, 70c; guineas, 70c per pair; ducks, Long Island, 35c lb.; ducks, other nearby sections, 28 @ 30c; geese, 13 @ 15c lb.

LIVE CALVES IN GOOD DEMAND

In spite of fairly heavy receipts of live calves last week the market continued good for them due to active demand. Prime calves found a firm market, selling April 5, at $15.25 to $15.50 per 100 lbs.; fair to good, $14 @ $15; small calves, $4.50 @ $6.

DRESSED MEAT SUPPLIES HEAVY

The supply of medium-grade dressed calves was excessive last week, but there was no surplus of choice to fancy veals. Most sales on April 5 of fair to prime veals were in range of 10 to 14c, with a few selected at 15 to 16c. Common calves were very low, small veals going down to 3 to 4c per lb.

Dressed lambs were in heavy supply and very much lower, with market weak. Dressed lambs, poor to good, per carcass, $3 to $9, choice dressed hothouse lambs, $10 to $11.

Very little country dressed pork received and market dull.

WILL CONDEMN DIRTY CALVES

There has been so much complaint lately relative to the dirty condition of country dressed calves received at the West Washington Market, that the local Health Department has announced that hereafter such calves will be condemned and seized. Skins or hides have been muddy and dirty, and more or less bloody in some instances. Condemnation will mean that shippers lose not only the calf, but the transportation cost. It is suggested that after thoroughly cleaning the carcass, both inside and out, the skin on each side of the opening from the neck to the rump be drawn together by sewing with white cord to keep out dirt which may be gathered in transit.

LITTLE CHANGE IN HAY MARKET

Arrivals of hay at New York last week were not heavy and prices and conditions changed very little from the previous week. The market continued fairly firm, but it is the general belief that shipments will increase rapidly as the country roads get better. The quality of most of the hay received is very poor and "No. 1 Timothy" is practically unknown on this market now. There is always a real demand for better quality of hay. Clover and timothy mixed with a low percentage of clover has sold fairly well lately but will not be wanted when the weather is warmer.

Rye straw is unusually scarce and sells easily at $30 to $32 a ton. Some Canadian hay arrived lately but sold at discount because pressed too heavily. No Hudson River boat shipments as yet.

FURTHER DECLINES IN FEED

There were further declines in various feeds last week as shown by following prices per ton, in 100-lb. sacks, carlots Buffalo rate basis:

Gluten feed, $40.55; Cottonseed meal, $44.75; Oil meal, $39; Dried brewers grains, $40; Standard spring bran, $33.75; Hard winter bran, $34.25; Standard spring middlings, $33.25; Choice flour, middlings, $35.25; White hominy, $32.05.

Corn advanced ½c. Rye declined 1c per bu. No. 2 yellow corn per bushel, 86¾c; No. 2 white oats, 53½c; Barley, feed, 72@76c; No. 2 Rye, 90c.

CASH GRAINS AT NEW YORK

The following were cash grain prices at New York, April 6:

No. 2 red wheat, $1.49½; No. 2 hard winter, $1.35; No. 2 mixed durum, $1.27½; No. 2 yellow corn, 95c; No. 2 mixed corn, 94½; No. 2 white oats, 56c; rye, 93c; barley, 80@81c; buckwheat, $1.86@$2.10. At Chicago—No. 2 yellow corn, 76¼@77c; No. 2 white oats, 45¼ @46¼.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on April 5:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	36@38	......	......
Other hennery whites, extras	34	......	......
Extra firsts	31@33	29@30	27½
Firsts	29@30	......	25¾
Gathered, whites, first to extra firsts	29@33	......	......
Lower grades	27@28	......	......
Hennery browns, extras	33	......	......
Gathered browns and mixed colors, extras	29@32	28@29	......
Pullets No. 1	25@27	......	......
Butter (cents per pound)			
Creamery (salted) high score	50@50½	54@55	......
Extra (92 score)	49½	52@53	......
State dairy (salted), finest	48½@49	50@51	......
Good to prime	47½@48	42@49	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$25@26	$20@21	$21@22
Timothy No. 3	23@24	......	18@19
Timothy Sample	16@18	......	......
Fancy light clover mixed	25@26	......	21@22
Alfalfa, second cutting	30@31	......	......
Oat straw No. 1	16@17	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	25@26	29@30	30@31
Fowls, leghorns and poor	23	26@28	27@28
Chickens, leghorns	21@23	21@23	......
Roosters	15@16	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	13¾@14¾	12@14½	......
Bulls, common to good	4@4¾	5@5½	......
Lambs, common to good	9½@12½	13½@15½	......
Sheep, common to good ewes	3½@5½	9½@10	......
Hogs, Yorkers	9@9¼	9¼	......

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PRICES, WHITE & BROWN LEGHORNS & ANCONAS, 50, $7.50; 100, $14; 500, $65. BARRED ROCKS, 50, $8.50; 100, $16; 500, $75.

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Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

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From carefully selected to lay flocks in BARRED, WHITE and BUFF ROCKS, WHITE and GOLDEN WYANDOTTES, BLACK MINORCAS, BUFF ORPINGTONS, S. C. and R. C. REDS, ANCONAS, WHITE, BROWN, BLACK and BUFF LEGHORNS, and Assorted for Brollers. Produced by men of many years' experience who know how to hatch good, strong, healthy Chicks. Fair prices. Postpaid, full live delivery guaranteed. Get our catalog and full particulars. Bank Reference. NEW WASHINGTON HATCHERY, Box A, New Washington, Ohio.

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Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off.

Free catalog. Member I. B. C. A.

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of heavy laying quality at the right price. Barred, White and Buff Rocks; Brown, White and Buff Leghorns; R. C. and S. C. Reds; White Wyandottes, Buff Orpingtons and Anconas. We hatch our own Chicks. Circular free. For a square deal, write to the

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The chicks come from the best obtainable stock.

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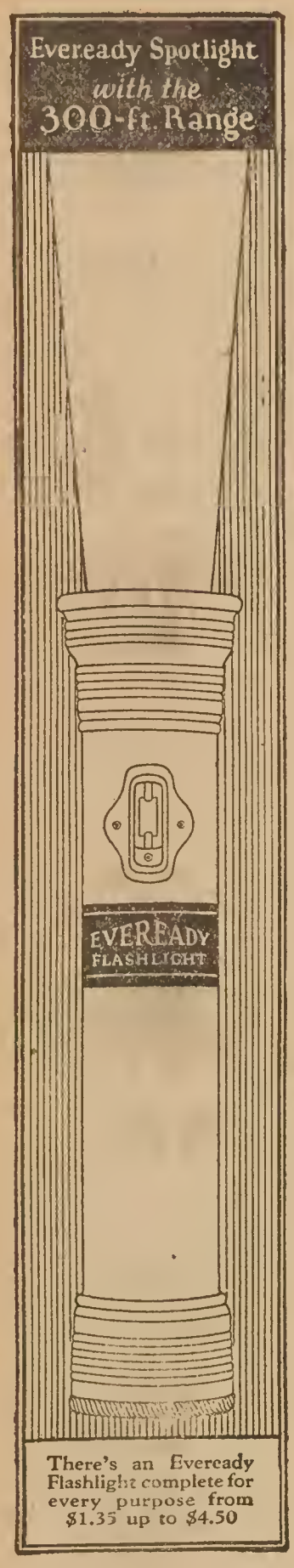

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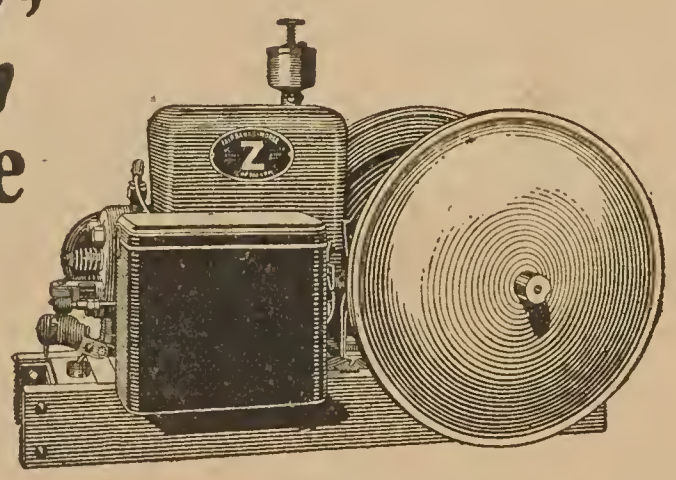

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This famous helper is now at work on more than 350,000 farms. At present remarkably low prices the 1½ H.P. Battery Equipt Model is the cheapest farm help any man can have. It does more work for less money than any other machine or man you can employ. It has been in such great demand all over the country that for many months the factory was unable to build enough of them.

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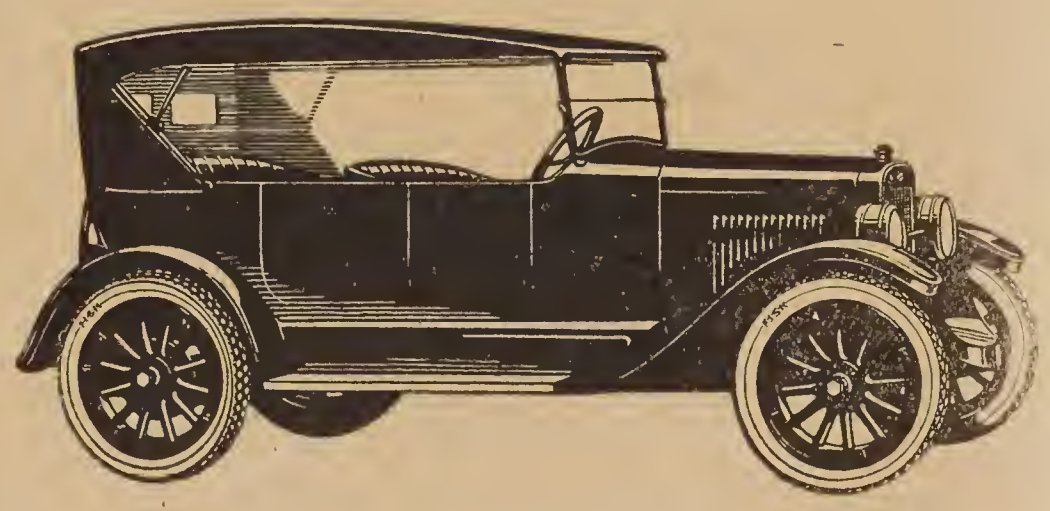

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AMERICAN AGRICULTURIST

Founded 1842

VOLUME 111 APRIL 21, 1923 NUMBER 16

"When A Feller Needs A Friend"

If You Want Farm News, Read American Agriculturist

School Bill Receives United Support

Organizations and Individuals Ask Passage at Large Legislative Hearing

As announced last week, a joint hearing was given by the Senate and Assembly Committees on Education of the New York State Legislature on Wednesday, April 11, on the Downing-Hutchinson Rural School Bill. This bill contains the suggestions of the Committee of Twenty-one. There was an immense amount of interest in the hearing as shown by the large attendance of several hundred people who filled the Assembly Chamber.

The opposition to the bill spoke first. There were several speakers who voiced their objections to the proposed legislation. Most of them were rather vague, not making anything clear in their talks except that they were opposed to the suggestions of the Committee of Twenty-one and to the Rural School Bill. Several of these speakers discredited themselves and their whole argument with the audience, and particularly with the Legislative Committee, by attacking the sincerity and honesty of the Committee of Twenty-one and the leaders of the various farm and other organizations. A very good talk was made, however, by Mr. D. B. Devendorf, a farmer of Montgomery County, who voiced his objections clearly and courteously. Mr. Devendorf was particularly opposed to having the law passed this year.

We have never attended a legislative hearing where those in favor of the passage were as representative as those who spoke for this Rural School Bill on April 11. Mr. Albert Manning, Secretary of the Dairymen's League Cooperative Association, Inc., and Master of the New York State Grange, made it plain that the resolutions on education passed by the last State meeting of the Grange at Syracuse were, with one exception, exactly in accord with the proposals in the Rural School Bill. During the hearing, representatives of several Pomona Granges submitted resolutions passed by their Grange, endorsing this legislation. Mr. Enos Lee. President of the New York State Farm Bureau Federation, said that this great organization of farmers was back of the School Bill and urged its immediate passage. Mr. N. F. Webb, speaking both for the Dairymen's League Cooperative Association, Inc., and the G. L. F. Exchange, of which he is now president, said that these organizations were in favor of the immediate passage of the School Bill.

Mrs. A. E. Brigden, President of the New York State Federation of Home Bureaus, read the names of representative women of the State who were present at the hearing from different counties and sections, sent there by women's organizations which they represented, to place themselves and their organizations on record in favor of this bill. Mrs. Brigden said that the rural women of this State are particularly interested in getting for their children better educational opportunities, that everybody knows such opportunities must soon be provided, and that the women are beginning emphatically to ask, "Eventually, why not now?" Mrs. Brigden was further supported in this statement by representatives of the League of Women Voters and by a representative of farm women of Dutchess County.

Mr. Peter Brady, an officer in the New York State Federation of Labor, urged the immediate passage of the Bill, saying that people in the cities fully realize that some of their best blood comes from the country, and that all would suffer if there were any lack of educational opportunities for country children. A representative of the American Legion stated that this organization urged the passage of the Rural School Bill, feeling that equal educational opportunity was one of the fundamental ideals of this country which members of the Legion had lately defended in the World War. Commissioner Graves of the New York State Department of Education stated that he favored this bill because it was sound educationally and because it had originated with representatives of the people.

Mr. MacManus, a school district superintendent from Otsego County, in leading opposition to the Bill, stated that the district superintendents of the State were opposed to this legislation. A score or more superintendents who were present vehemently and emphatically denied this statement, stating that a majority of the superintendents of the State favored the Downing Bill.

Many other organizations and prominent individuals were present to give their support, including the New York State Teachers' Association, the New York State Agricultural Society, the Dairymen's League News, the American Agriculturist, Mr. Morgan Garlock, President of the Eastern States Milk Producers' Association, Mr. Jared Van Wagenen, Jr., a representative farmer of Scoharie County, and farmer delegations and individuals from many rural counties.

At the close of this hearing, there could be little doubt with the members of the Legislative Joint Committee, or with anybody else who approached the situation with an open mind, of the tremendous amount of representative sentiment throughout the State in favor of the immediate passage of this legislation. It is, of course, impossible for anyone to predict whether or not it will pass this year. The political situation which results in a deadlock between the Senate and the Assembly makes the passage of any law, no matter how desirable, extremely doubtful. The hearing was valuable in bringing out the great need for this legislation and the large amount of constructive support there is for it, all of which means that the bill is certain of passage either this year or next.

"Merchandise and Avoid Market Gluts"

Aaron Sapiro's Message to Empire State Potato Growers at Rochester Meeting

PRACTICALLY the entire meeting of the Empire State Potato Growers' Association held on April 11, in the Chamber of Commerce Auditorium in Rochester, was given over to the discussion of marketing of potatoes with Aaron Sapiro, counsel of several successful California farm cooperatives, holding the center of the discussion. His discussion of cooperative marketing of potatoes held the assembly of the 400 growers present, spellbound. He set forth the principles of cooperative marketing in a definite, concrete manner, leaving no doubt that cooperative marketing is a piece of real intensive high-powered business.

In opening the meeting, President K. C. Livermore of Monroe County presented in a concise way the main problem that faces the potato growers to-day. He said, "The lack of sufficient volume makes it difficult to operate at a sufficiently low cost to make the enterprise efficient. Therefore it is most apparent that a State-wide organization must be perfected, if orderly and profitable merchandising of potatoes is to be effected." Following the introductory remarks of Mr. Livermore, Mr. Sapiro was introduced and held the floor for the greater part of the remainder of the meeting.

In opening his address and before going into the discussion of the construction of the cooperative, Mr. Sapiro paid high tribute to the Dairymen's League Cooperative Association, saying that it was one of the greatest cooperative accomplishments in the world, especially when there is taken into consideration the difficulty in handling such a highly perishable product as milk.

According to Mr. Sapiro, of all the cooperatives in California and the Pacific Coast, there are only two that have not been through the process of reorganization. Many have reorganized repeatedly, each time eliminating an undesirable feature and finally arriving at the ideal. Mr. Sapiro said: "There is no disgrace in failure. It is a disgrace to fail when we have the right plant before us to use as a basis. In organizing a cooperative, it is as essential to study failures as well as successes, for by eliminating those factors that allow failure we are able to eliminate just so much danger of ultimate disaster. No farmer should join the cooperative simply because his neighbor is a member or a neighbor wishes him to. He should join because he wants to."

The Aim of Cooperative Marketing

The aim of cooperative marketing was defined by Mr. Sapiro in just four words—"Stop dumping, substitute merchandising." To elaborate his idea he used the potato situation of 1922 in Maine. Early in the season forecasts of a huge crop were distributed among growers by speculators. Many of the farmers were scared into digging their crop early with the thought in mind that they would be able to sell their crop and get "out from under" before the crash came. The result was a glut on the market. Even the speculators were over-flooded with the crop and in their haste to dispose of their holdings, less they suffer a loss, allowed themselves to be bid against and whipped-sawed by the consignment brokers who bid the crop down with the result that the market broke. Digging was stopped and 70,000,000 bushels rotted in the ground. Nothing more than a normal crop actually moved into consumption and it was this crop that moved into market that should have set the price. As a matter of fact the price was set by the crop that was dug as well as the 70,000,000 bushels that rotted, a price far below the cost of production. Had there been a clear-cut, thoroughly planned scheme of merchandising, the undug crop would have established the price and there never would have been a glut on the market. The surplus would have been rented out to other markets.

The Maine growers have now organized on a State-wide basis. Over 60 per cent who control over 50 per cent of the crop (a necessary factor in cooperative marketing) have signed long-term pooling contracts. They are going to grade their crop and make a study of markets. Hithertofore, Maine growers apparently considered there were only two markets for their potatoes in the whole world, New York and Boston. Under

(*Continued on page* 360)

American Agriculturist

FARM—DAIRY—MARKET—GARDEN—HOME

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending April 21, 1923** **Number 16**

The World's Greatest Scourge

Lord Robert Cecil Gives Suggestions For Ending War

"IN the first place, let me tender to you my warmest thanks for the kindness of your welcome, for this fresh proof of the hospitality so world famous of the American people. It is, I am sorry to say, the first time that I have had the honor of visiting this country, and it is a matter of profound pride and gratification that I should at last, after many disappointments, have the opportunity of saying something which possibly may be of use and of hearing something which I am satisfied will be greatly to my profit in intercourse with a great audience like this.

"I have many reasons for gratification at this opportunity. I am not one of those who have forgotten the comradeship of our two peoples in the great war. I shall never forget as long as I live that thrill of joy and happiness with which I heard the decision of the American people to take their part by the side of the Allies in that great struggle.

In the Critical Days

"I shall always remember the thrill with which we watched the American first battalion troops marching through London, and I shall never forget, nor will any of my fellow countrymen, the glorious deeds and magnificent services which the American Army rendered to that cause in those critical days of 1918. I remember well that my pleasure and our pleasure, I think I may say, was not only for the immediate assistance which you gave to us, but because we saw the dawn of a new era in which these two people should march together in the cause of peace.

"There have been, as Mr. McDonald has already said, many disillusions and discouragements since the armistice was signed, but I for one have not abandoned and will never abandon the hope that the great work of peace will ultimately be the accomplishment of the joint work of the American and British people.

"And, ladies and gentlemen, that is not the only instance by any means of cooperation between our two countries. There was just about a year ago completed the negotiations which resulted in the Washington treaties of disarmament. That was a very great thing. It was a concrete achievement in the cause of peace.

Should be Further Limitation

"It is quite true it applied necessarily only to naval matters, and was in the nature rather of a limitation than a reduction. It is quite true that it applied only to capital ships, and there are, I should imagine, you and I in this room who would have been very glad if it could have gone even further than it did.

"For our part, for my part, I should rejoice greatly if we could have a similar limitation not only of capital ships, but of submarines and other craft also. All warfare is cruel and horrible, but in naval warfare I do not know anything which is more cruel and more horrible than the hidden attack of the submarine, made without warning, made without discrimination, an attack which may send to their death not only the troops and combatants, not only the men of the opposing party, but women and children also.

"War is a horrible and devilish thing, and when nations under the stress of that experience, are at death grips with one another, when their whole future and existence depended on the result of the struggle, it is too much to expect that any paper regulations will limit or humanize the means which they employ; and if we doubted it, the experience of the late war is a terrible warning to those who think that there is any means by which you can make war more tolerable. The only thing is to prevent its happening. That is the only security for humanity.

Need Reduction in Army and Air

"Ladies and gentlemen, in addition to naval disarmament, perhaps more urgently even than that, we require ultimately disarmament, immediate reduction in armament both by land and by air. After all, in some ways land armaments are more destructive to peace, more dangerous to humanity than armaments by sea. You cannot invade a country with a fleet. That can only be done by infantry. You cannot make—at least it is not very easy to make—at the life of a country by a fleet. That a sudden and unforeseen death-stroke is the work of a land army attacking without provocation and without warning, and if that is true of a land army it is even more true of the air.

"You know—we all know—that in the last war attacking from the air was for the first time made a practical thing in warfare. We all remember—we at any rate on the other side of the Atlantic remember—what bombing from the sky really meant. We have a vivid recollection of great explosives falling indiscriminately in the most populous and peaceful of our cities, slaughtering without discrimination every kind of human being, destroying the most harmless and the most helpless just as readily as those who were fighting in the field. What was done in the late war is but a pale shadow of what will be done in future wars.

The Horror of Bombs

"I am told that already bombs exist 100 times as powerful and destructive as any that were used in the last war, capable of destroying great areas, and not only destruction that is present, but poison as well. A bomb may be dropped from the sky on a great city. It may level large areas of it to the ground. It may poison the whole of the population for, it may be, hundreds of miles around the place where it fell. Nor does even that exhaust the possibility of air attack. There are some human beings who are planning, I am told, that you should be able not only to poison but to kill by disease the population by bombing from the air.

"Nor will any country be safe, for just as the extent of the damage to be done has grown enormously so also has the range of attack, and it is no wild idea that in the near future it will be as easy to send airplanes across the Atlantic as it is now to send them across the Channel. Ladies and gentlemen, this, if it stood alone, would be surely a strong call to the peoples of the world to set their house in order and make a determined effort to limit these agencies of destruction before it is too late.

"In my judgment, we have come to a great crisis in the history of humanity. I agree with what my countryman, Lord Gray, said the other day, the nations must either learn or perish. That is the truth. That is the dilemma; that is the issue that is laid before all of us, wherever we live, whatever our station in life, whatever our political or social aspirations.

A Lesson from the Ancients

"I had the honor of crossing the Atlantic in company with a number of your fellow citizens, who were returning from a visit they had paid to Egypt to see the marvelous discoveries which have recently been made in that land. And they spoke to me with great interest and enthusiasm of the astonishing degree to which the ancient civilization of Egypt had been perfected. There were others who had been to Crete and told me

(*Continued on page* 365)

Shall We Commit Suicide?

THAT is what Rome and all the other ancient civilizations did because they insisted upon making war. This is the thought constantly emphasized by Lord Robert Cecil, England's chief exponent for permanent peace.

"In my judgment," says Lord Robert, in his first speech to an American audience, "we have come to a great crisis in the history of humanity. The nations must either learn or perish. That is the truth; that is the dilemma; that is the issue that is laid before all of us, wherever we live, whatever our station in life, whatever our political or social aspirations."

Farm people especially will be interested in Lord Robert's argument for the end of war. Therefore, we take pleasure in passing all of his speech on to you on this page that space will allow. This will be followed in an early issue by a brief outline of just what the League of Nations is, how it is organized, and what it proposes to do, and later we will explain the plan for a World Court. If you like these simple, clear explanations of the great world problems of such vital importance to us all, let us know, so that we may continue them. —The Editor.

Editorial Page of the American Agriculturist

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A Good Suggestion

SENATOR STRAUS, Chairman of the Senate Committee on Agriculture, has introduced a resolution into the New York State Legislature calling for a joint legislative committee to study marketing conditions. In the language of the resolution, this committee would determine whether our present laws designated to promote and encourage cooperative marketing are adequate for the purpose, and investigate to what extent government cooperation may be desirable for the erection of warehouses, the establishment of markets, and the dissemination of accurate information among people in the cities as to conditions on the farm. The committee would also be authorized "to investigate whether the great barge canal, on which the State of New York has spent over $150,000,000 may be utilized for bringing foodstuffs from the farming districts to the cities." If appointed, the committee would consist of three members of the Senate and three members from the Assembly. The resolution calls for an appropriation of $15,000 to be used in the investigation.

We believe that such a study would be well worth while. To be sure, there have been so many investigations of farm conditions that farmers are rather skeptical as to any good that can come from any new one, but there is large opportunity for a committee to make a real study of present marketing conditions which could result in much good to both producers and consumers. Dairymen will remember the Wickes Legislative Committee which made a thorough study of the milk marketing situation in 1916. The facts found and published by the impartial Wicks Committee did much to secure the support of public opinion for the dairymen in their fight for better prices for their milk.

We heartily agree with Senator Straus in a statement he made in regard to the market situation in connection with his resolution asking for a legislative committee to study farm marketing. Senator Straus said: "It is an absurd situation when one comes to consider it, that Oregon apples, produced over two thousand miles away, are able to compete right here in our own city markets with New York State apples, produced fifty or one hundred miles away, nay, more; that while Oregon apples are selling in the markets of New York State, at that very time, New York apples are rotting on the farms in the neighborhood of the city, because it does not pay the farmer to pick them. Scientific agriculture is solving the problem of an adequate production of foodstuffs. It is time some consideration was seriously given to solving those problems of marketing without which even the finest crop results in neither increased profits to farmers nor cheaper foodstuffs in the city."

Getting the Farm News

WE call your particular attention to the real farm news in this issue of American Agriculturist. As we have stated many times, we believe it a fundamental purpose of any farm paper to get to its people the news of farm and other affairs in which farm people are interested, writtten and interpreted from the standpoint of what bearing such news has upon farm conditions.

Illustrating how we are carrying out this thought, notice in this issue the account of the legislative hearing held in Albany on the Downing-Hutchinson Rural School Bill. We sent a representative purposely to Albany to attend this hearing. We also have a special Albany correspondent who furnishes us for your benefit up-to-date legislative news. The same is true of Pennsylvania and New Jersey. In this issue there is an extremely important account of a big meeting at Rochester, of the potato growers who were addressed by Aaron Sapiro, the great farm cooperative enthusiast. Mr. Ohm, our associate editor, made a special trip to Rochester to report for you what took place at this meeting and Mr. Sapiro's leading remarks. This issue carries an account of the most recent meeting of the Maple Sap Producers' Association. We had a representative present at Syracuse who gives you on another page the market situation of maple syrup and sugar as reported at this meeting. Another representative of American Agriculturist reports this time the last meeting of the Cooperative Council, representing all the commodity cooperatives in New York State.

All of this is special news material in addition to that which is furnished by our regular correspondents scattered all over our great territory. It is, of course, costing us a lot of money in salaries and traveling expenses to obtain this news service, but we think it is what you want. If there is any way in which we can improve this service, won't you tell us how?

The Servant is Worthy of His Hire

MRS. ROBERTS' article on the country doctor in our March 17 issue, attracted considerable attention. Some of the good letters that we received from our readers giving suggestions for keeping physicians in the rural sections are printed on the opposite page. We particularly noticed that most of these letters called attention to the need of paying the doctors well for their services. With this thought we heartily agree. We know from our own experience how hard money comes to most country people, but it is no more than human nature that if doctors can get much more money in the city and can collect that money more promptly, the city will be where they will go.

Along this same line, we have before us a letter from a member of our great American Agriculturist family which says, "I have been secretary of our church pulpit committee for some months and we are finding it hard to get a minister to come to the country to preach. I have corresponded with over thirty-five ministers and one would not expect from men of their profession the questions they ask such as, electric lights, State roads, hard-wood floors, baths, distance to railroad, etc."

We do not agree with this sentiment. We think that men who have spent years and a good deal of money to properly train themselves professionally have a right to demand and expect reasonable modern conveniences in their homes. Even if they are willing to make great sacrifices themselves, they must consider whether or not they should put themselves into a position where their children must sacrifice, too, in advantages which they otherwise would have. It is strange how all of these country problems go back to a question of dollars and cents. We have often said that if farmers could get better prices for their products, they would take care of all of their other problems. They could then pay for teachers, ministers and doctors so that they would feel that they were servants worthy of their hire, and have no desire to leave for other fields.

Support the Fruit Exposition

PLANS are developed for the Eastern Fruit Exposition to be held in New York City next November, which bid fair to make this the largest and best fruit show ever held in the State. All of the New England States with New York and Maryland have definitely decided to participate in the show. Other Eastern States are expected to take part.

It is time eastern growers awoke to the necessity of advertising eastern grown fruit in our big cities and this proposed apple exposition, featuring eastern fruit, will be a real step in bringing our fruit to the attention of city consumers. An appropriation of $30,000 has been asked from the New York State Legislature to enable the State to take an adequate and worth while part in showing its fruit at this exposition. This appropriation should be granted.

A Word for the Country Town

SEVERAL books have appeared in recent years which libel and misrepresent people and conditions in our small country towns. To such books we take considerable exception. To be sure, small town people gossip, and gossip at any time and any place is an evil thing, but we do not know that it is any worse to talk about one's neighbor over the backyard fence than it is to read avidly the last sensational word of the latest murder or divorce tale that fills the front pages of the city daily newspapers.

To be sure, there are those in the country towns who have more than their share of narrowness, selfishness and prejudices, but human nature is the same everywhere and there is about so much devil in all of us, no matter where we live. If evil does not show up in city folks in the forms that it does among rural residents, it is likely to make some other and equally bad manifestation.

Small town folks and those who live on the farms have, of course, their faults, most of which are the results of a life-time of contending with small, but irritating and narrowing affairs. Nevertheless, all of the modern novels to the contrary, when it comes to the final showdown, we hope our chances will be as good as the majority of those who live on Main Street.

We have often thought of the people who live in the rural neighborhoods and small towns as like one great family, knowing one another's faults, perhaps talking about them too much at times, but always standing shoulder to shoulder with one another in times of sickness and trouble.

Wanted! A Resident Country Physician

Good Roads, Prompt Pay and Appreciation Will Keep the Doctors

BEING country bred, and with nursing ability, I frankly admit that the life of the average country doctor is anything but one "grand sweet song." Although, I venture to say, the extent of his popularity and success depend largely—if not entirely—on the character and personality of the man who bears the title of M. D. As in every line of business, there are many types and classes. Too many of our present day doctors are too "classey," too scientific and unadapted to country life and people, and enter the profession merely from a cold business point of view. Seldom do we find one of so rare a combination of professional skill, refinement and kindly sympathy and friendliness toward all with whom he comes in contact.

There are however, many discouraging problems, many demands under which the country practitioner is expected to labor. Bad roads, together with financial difficulties not only seriously handicap, but oftimes prevent him from doing all he might be capable of. Yet this friend to humanity must never complain, never be sick or need a vacation, but always on tap to serve an inconsiderate public, with but few exceptions.

Then, too, one must remember that the attitude of the patient plays a most important part. When your condition necessitates the calling of the doctor, say to yourself, "I am going to get well!" Play the game fair and take up the task on a cooperative basis, with all confidence in your physician. Last, but not least, pay him promptly and cheerfully and never by word or action convey the impression that he is just a necessary evil. But rather, encourage and send him from your bedside with a hope in his heart and the pleasure and reward will be yours.—MRS. ROBERT F. WEEKS, Babylon,N. Y.

We Need a Resident Physician and a Community Nurse

THE country district needs a resident physician. Few country districts have them. There is something terrorizing about being sick in the country in winter, for one is so uncertain about obtaining a doctor. The city physician as a rule keeps only cars and they are very loath to come into the country in bad winter weather.

We live within five miles of a city of 31,000 population and there are many doctors practicing there. In summer we can get a doctor, but in winter we never know whether we can or not. We are unfortunate in having been sick a great deal, probably we realize the acute shortage of country doctors more than normal, healthy families. We keep our telephone chiefly for use in calling a doctor in case of illness, but it wouldn't avail us much in the midst of winter. I know many people in poor health who have been obliged to stay in town during the winter to assure medical treatment.

If every rural district had a doctor it would banish one of the very worst disadvantages of living in the country. The country districts want first-class physicians of the same high type of training of which the city physician boasts. If we can obtain a high type of medical man we will pay them the same as we pay our city doctors and we won't begrudge the money either. We don't expect something for nothing.

There is much demand for medical service in the country. There would be greater demand if it could be fulfilled. Surely it seems as if a country doctor could make as good a living as a city physician. There would be a broad field open in the country in connection with medical inspection for our schools.

By OUR READERS

We want and need it the same as the city schools. This means another source of revenue for the doctor. A public health nurse could be provided to work in cooperation with the doctor and thus make his work easier.

It would be a splendid thing if every community had its own hospital. Many small villages are beginning to realize this need and supply it. Why not the country district? Many people have a prejudice against going to our city hospital. If they had one nearer home, in the management of which they were interested and which they felt was really their own, they would feel much differently. A hospital in the section where he practiced would greatly facilitate the work of the doctor. There is no reason why a country doctor may not keep up-to-date and have the benefit of association with his city brothers in the profession.

A great many things can be done to aid the country doctor as I have pointed out. The financial gains should be ample to satisfy a doctor and the country public could cooperate with him to make his work easier. Finally a resident country physician can fulfill a great humanitarian mission to the farmers because of the isolation of the country districts.—S. GWENDOLYN SPINK, Watertown, N. Y.

TELL the Doctor if he's helped you,
Let him hear your praises now.
Do not wait till hands are folded
And like marble is his brow.

Give your sunshine to the living
Not alone in words, but deed,
Prove yourself a friend in trouble,
Help and cheer in time of need.

Give your sunshine to the lonely,
Scatter blossoms 'long the way,
And your life will be the brighter,
Pure and sweet in every way.

—Mrs. Robert F. Weeks, Babylon, N. Y.

Build Decent Roads

WHEN you asked how to hold the country doctor, I asked myself "What are country doctors made of." And I thought, they are born or else brought up from the cradle under the motto "all that I am and all that I have, I give freely to my fellowman," or sometimes he has had a true vision of the Christ. They are the most unselfish of men as well as the most courageous. Then all we have to do to hold them is to build decent roads for them to travel on and they'll come at any hour of the day or night, regardless of weather. Doctors are generally like this, but occasionally in the city you'll find one more like a politician than anything else.

He can't afford to run the risk of spraining his horse's legs or breaking his buggy or wrecking his machine, for maybe he has a family and can't afford to be extravagant or reckless. Besides, he doesn't want to have a lame horse or repaired vehicle any more than we do.

Then when he names his price, pay him cheerfully, or promise to if you haven't it at hand and after that when you meet him or hear his name mentioned, feel in your heart that you still owe him—that money cannot pay the debt.

Don't think because he's so jolly and genial that he hasn't an ache or a pain. He may have a headache that nothing but sleep and rest can cure rightly or his body may be dead tired and achey because of long hours and irregular meals. So make everything as easy for him as possible and as pleasant, for he may have troubles, too, and just puts on that happy look to help you.—MRS. WALLACE D. SWISHER, Newark, Ohio.

Should We Subsidize the Doctor?

MY message is from a hill country, hills that are almost young mountains where the snow drifts deep in winter and stays late in the spring. The roads follow the least drifted places through meadows, across fields or through woods.

Our middle-aged doctor, who is all that Mrs. Roberts in her article in your paper said a good doctor is, often remarks: "If folks would only open the roads." That would be one great attraction at least in winter. The summer roads are not to be dreaded.

If there could be a certain sum set aside by each locality, a sort of salary, paid weekly or monthly under the head of the Health officers' pay, the young doctor would have something to tide him over the lean times, until he could build up a practice. Young men leaving medical college often are in debt, for money they borrowed to help them through the last of their course. That same course costs with economy $5,000.

In rural sections they must furnish their own medicines as it is often many miles to an apothecary. A prompt payment for office or house calls is an attention much appreciated, so often neglected. If we would answer the doctor's questions frankly, thus aiding in a rapid and thorough diagnosis and not expect the service to be of a mind-reader as well as of a thermometer and disease aiding in our rapid recovery, it would be another encouragement.

What pleasure we can give our doctors if they can feel they are heartily welcomed in our homes, with the same respect we give our ministers, lawyers or teachers, or any cultured person. They must deal with moral wrecks as well as the pure minded and treat all fairly. How easy it is to start a scandal that has disgraced more than one innocent doctor, and burden his mind so that some have thrown up a growing practice to put miles between them and the pain of bearing a ruined character thrust on him, by the ignorance of depraved minds that hold little good.

Don't be stingy of the thanks and praise, show a full appreciation of our medical aid. Heartfelt thanks make bright spots in any one's life, especially a hard-worked doctor whom it is so easy to blame for faults that are generally our own.—WINIFRED W. SHORE, Oxford, Chenango County, N. Y.

Thinks a Country Nurse Would Help

YOU have asked for practical suggestions concerning the country doctor. Years ago all the small country towns and even hamlets had a resident doctor. If the young doctors are not locating in these places at present, it goes to prove that something must be wrong with the people that go to make up our population in the rural districts.

First the condition of our roads have something to do with the young doctor locating in the city where he can run that new car of his over paved streets instead of our almost impassable country roads. I know some one will say that we are spending millions of dollars to build paved roads in the country. I think this is as it should be for

(*Continued on page* 358)

Invest in a McCormick-Deering Manure Spreader for More Profitable Farming

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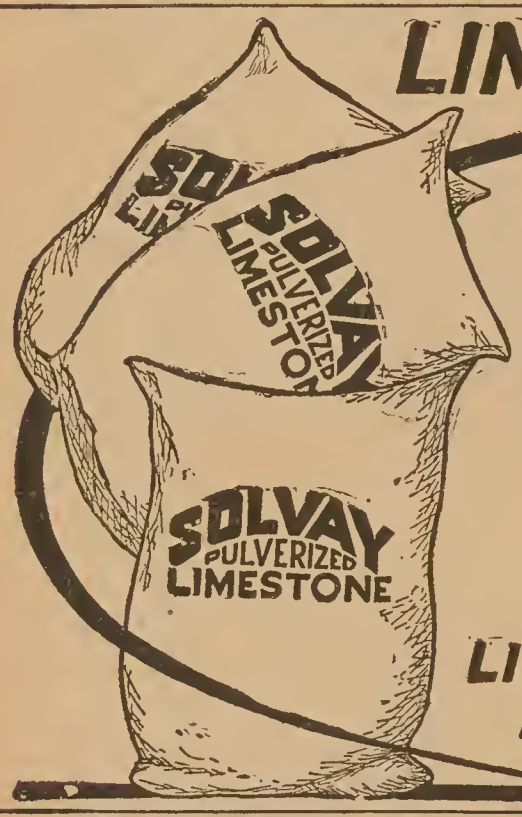

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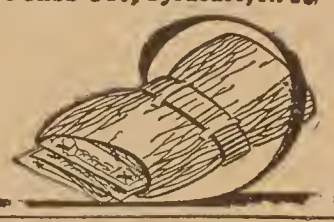

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An Unsolved Problem!

Abortion Still Baffles Our Livestock Men

By H. E. COOK

I HAVE received a most interesting letter from Mr. Sam Patch of Oneida County, N. Y., in which he brings up one of the biggest problems the dairymen have to face to-day. His letter is as follows:

"I read in one of your articles sometime ago that the greatest trouble you have had in your herd was with abortion and failure to breed. Now, I have run into that same trouble for the past three years. I have been having from two or three cows lose their calves after they have carried them from five to six months. I keep them from the bull four or five months, and then breed them. Last week I lost a calf from a five-year-old registered cow that had been bred to a very fine registered bull that has never done service outside of the herd he has been in, and was held for $100 service. She carried the calf for six months. I am a milk producer, and want most of my cows to come in the fall, but this year they are coming in at all times. The cows all seem to be in perfect condition. The barn is new—I built it three years ago, putting in all modern improvements, drinking bowls, etc.

H. E. COOK

No Fault in Treatment

"THE animals are curried every day and get exercise twice a week if the weather is right. We feed silage, clover hay, oats on the straw—grains and oil meal. The cows are never abused, and are not allowed to fight. I would appreciate it if you would let me know if there is anything to be done. I would also like to know how long, in your opinion, it is safe to breed a cow after she has lost her calf. Is there any truly perfect abortion remedy?"

If I could answer that letter my reputation or fortune would be made. Losses from the causes mentioned are probably greater than from all other sources combined in the dairy herd. I have never been perfectly free from it in some form, and this year has been the worst of many. The stages are from a failure to breed along to calves that are dropped alive. Now the rules call for immediate segregation, which we obeyed for a time, say 20 years ago and back of that for 20 years, but I found the plan a burdensome one without the apparent advantage our authorities claimed.

I have no hospital artificially heated, and it would be a case of cruelty to animals to put them in the winter where they would nearly freeze. We do not keep them in our certified herd until they are clean and normal again, and that is usually for about four weeks, feeding their milk to calves. We do, however, daily flush out the uterine passage, using from 8 to 10 quarts of water, to which is added disinfectants and a bit of salt. We have a pump with a rubber hose attached that reaches nearly to the uterus.

Disinfection is Thorough

THIS treatment prevents odor and is also a germicide. In addition to this treatment, we wash the rear parts of the body with the same solution, including the tail. It is no burden to do these things, because we are all of us trained in cow washing, a very necessary part of clean milk production. From the beginning I have been educated to breed the cow only after three or four months has elapsed, which is, I think, sound practice, and yet I have had cows bred within one month and produce a full-time living calf.

Investigators for a time were sure that the abortion germ was responsible until Dr. Smith proved that it might be and might not be. Other germs were found present also that may have some effect. We were taught for a time that infection was carried by the bull. Authorities believe now that such is not the case. We followed the practice for several years of disinfecting the bull before and after service. I am not sure we profited thereby—abortion has not been more prevalent among cows purchased than among those raised on the farm. More young things seem to be infected than are the older cows.

It is our practice to both dispose of them and keep them. If they are inclined to fatten and to dry off, they are sold otherwise; if they are better than the average in milk and butterfat, they are kept. Our veterinarian has given the ovarian treatment to a considerable number that failed to breed succeeding in more than half the cases.

An Unanswered Problem

BASING a summary upon what I read and my own experience, there is no agreed-upon cause and no specific to apply. We are safe, and probably good results come from douching and keeping the cow thoroughly washed and others near her with disinfectants. Keep the good cows if they milk fairly well and sell others and wait till somebody finds out a cause and remedy.

I have had a theory for a long time, which can be taken for what it's worth. A cow has two main functions—one to reproduce and one to give milk—each drawing heavily upon her vitality. The one main object of our breeding is to develop the milk-producing function and resistance to physical weaknesses resulting therefrom. But we have not studied how to strengthen the reproductive organs.

It is a well-known law of plant and animal development that the development of one part of function long continued has a tendency to weaken other parts. This law taken in connection with reproduction so delicate and the least understood of any bodily function, makes it possible to conceive that this theory might have some weight. Furthermore, a general weakness of these organs fits into the present theory that there may be more than one cause. A weak animal or plant, or person, or organ always becomes a prey to destructive bacteria or agencies, whatever they are.

Wanted! A Resident Country Physician

(*Continued from page* 357)

those of us that live on one of these roads surely cannot sound our praises high enough for them. We cannot all live on these paved roads, we must think of the many by-ways that lead to these paved roads.

We live in a country where the health officers and milk inspectors are on the job when it comes to looking after our dairy herds, sanitary condition of the stables, etc. I am not finding any fault with this. I believe they should enforce these laws, but we have some very unsanitary condition existing in some homes that should be investigated. I wonder what the score would be if there would be a home inspector come and look after the sleeping quarters of some homes that have come under my observation.

If every community were to have a visiting nurse to cooperate with the country doctor, his work would be easier and more effective.

Then I think of another way. We read in the Great Book that we should "bear one another's burden." If it is not clear to us how we may be able to do this, turn your attention to that strong passage in James 5:16 "The effectual fervent prayer of a righteous man availeth much."

In conclusion I would say we may help our country doctor by building better roads, better organized communities to look after the sanitary condition of every home, a wide awake visiting nurse and Red Cross organization. Last, but not least, more good old-time Christians that believe and practice prayers. —MRS. EDNA WHEELOCK, Union, Ohio.

I think your paper is better than last year. It is all right.—Delbert Dick, Troy, N. Y.

Eastern Apple Growers Meet to Consider Further Plans For Exposition

HERSCHEL H. JONES

THE Eastern Apple Exposition and Fruit Show plans are progressing very encouragingly, as evidenced by the large and enthusiastic attendance at the meeting held in New York City April 10 of the General Committee of fruit growers, agricultural department officials and others who are promoting this project. There were about 40 representatives present at the conference from Massachusetts, New York, Vermont, Connecticut, Rhode Island, Pennsylvania, Maryland and New Jersey. Some of the States have not yet succeeded in getting appropriations to enable them to complete final arrangements for exhibiting their fruit at the exposition, but enough of the Eastern States are ready to go into the campaign to advertise Eastern fruit to make its success assured.

The plan for an Eastern Apple Exposition to be held in the Grand Central Palace from November 3 to November 10 next fall was developed several months ago at a meeting called in New York City of large Eastern fruit growers and representatives of agricultural departments, colleges of agriculture and other institutions concerned with fruit industry in the eastern United States.

The Apple Exposition is intended to be the center of an extensive advertising and publicity campaign for the purpose of bringing before the public the superior quality and flavor of Eastern fruit. Incidently, those who are supporting the proposed campaign expect that one of the principal results which will be accomplished will be the education of the farmers themselves in the East to a better appreciation of what the buying public wants, and to better packing and grading of their fruit. In competition with the perfectly standardized and efficiently marketed apples from other parts of the country, the Eastern fruit has been crowded to a considerable extent out of its own best markets.

While it will not be the purpose of the proposed show to discredit in any way the fruit from other parts of the country, it is intended to familiarize the consuming public with Eastern fruit and fruit products, and to encourage the Eastern fruit growers to advertise their products more extensively and improve their methods of marketing.

The State Horticultural Society in Massachusetts has undertaken to raise the funds itself for putting on a large exhibit of fruit from that State. Some of the large commercial interests have agreed to put up a dollar for every dollar the growers themselves raise for this purpose. Vermont has already secured an appropriation from the Legislature to enable it to make a strong showing at the exposition. The New York State legislative appropriation is still pending in the Legislature, but the cooperative organizations and individual growers throughout the State have shown great enthusiasm for the campaign.

The cooperation of the public schools, women's clubs, consumers' organizations, trade bodies, civic associations and all sorts of organizations in New York City is being secured for this exposition. It is planned for each State to have a quantity of its own apples at the exposition to give to the thousands of school children that will attend. Consumers, who are interested in buying apples direct from the producers, will have an opportunity to place their orders at the show and even to buy the fruit there to take home with them. In addition to apples, there will be exhibits and demonstrations of maple syrup and honey produced in the Eastern States.

The next meeting of the General Plans Committee, of which Thomas E. Cross of Lagrangeville, N. Y., is chairman, will be held June 1, or earlier, dependent on how soon some of the States are able to secure appropriations from their legislatures.

Among the New York State fruitmen present were Thomas E. Cross of Lagrangeville; C. R. Shons, Washingtonville; Kirby Lewis, Red Hook; Mr. Hubbard of Hudson, and Mr. Van Buren of the Department of Farms and Markets.

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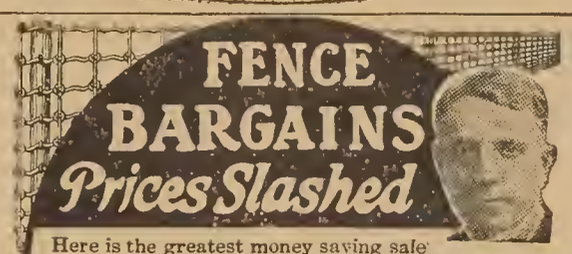

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"Merchandise and Avoid Market Glut"

(*Continued from page* 354)

their organization plans the consumption in other cities will be studied, such as Philadelphia, Baltimore and other cities, based on consumption, freight rates, etc.

When the markets have been thoroughly studied the crop will be routed out to avoid gluts. In routing the crop, New York, Michigan and New Jersey shipments will be also watched. By this scientific method of routing, dumping will be avoided because there will be no individual shipments of consequence to overstock the market. Individual selling is the heart of dumping.

Another factor that the Maine growers have taken into consideration is that they have adopted the commodity viewpoint. They are looking on potatoes as potatoes whether they come from Tom, Dick or Harry. By this means of pooling no man can get preference over another. A director has no greater opportunity to sell his potatoes at a greater profit than the smallest grower.

The Techinque of Organization

After taking up the aims of cooperation, Mr. Sapiro discussed the technique of the organization. The first factor under this topic is organization by commodity, not by locality or individuals. Local groups are essential in handling a perishable product, as far as the grading and storing of the commodity. The central organization takes care of the distribution and merchandising.

Obviously the state law must be so that the farm organization is free to go ahead. It is useless for farmers to attempt cooperative marketing in a proper manner if the laws of the State do not permit freedom of movement.

A very essential factor in the technique of organization is that of membership. Only farmers who raise the commodity or produce the commodity should be eligible to membership in the cooperative. Mr. Sapiro pointed out many of the pitfalls where members of the cooperatives who were not actual producers, had gained a foothold in it. Democratic control is a part of the technique of organization that lends to its strength. Each man has a vote and through the districting of directors it is possible to keep the control of the organization fairly distributed, eliminating the possibility of one district operating to the disadvantage of another.

There must be a contract that binds —a real hard and fast written agreement. It should cover a long period of time and should be tight. It is necessarily a long time proposition for there are local disorders to overcome, problems must be surmounted. It takes years to overcome prejudices.

The last factor in the technique of organization is the assurance of a volume of business which will be sufficient to warrant the cost of administration. In other words, there must be a minimum of volume. When the organization knows how many potatoes it is going to have at its disposal it can be determined very quickly whether or not the association is going to operate to the advantage of the grower. One of the greatest problems local potato grower associations have to face to-day is the fact that the amount of business they are able to do is so small that they cannot pay the overhead of the administration of the local.

The Man for the Job

In discussing the administration and the appointment of administrative officers, Mr. Sapiro said, "A popular man is not necessarily the man to be general manager. Appreciate friends—do not employ friends. What we need in our business of selling potatoes, are 'hard boiled' commercial experts; experts in selling, experts in financing and experts in merchandising. The cotton growers in the South are paying a salary to their general manager that rivals the salary of some of our highest paid executives. But the cotton growers feel that he is worth it, for their association is doing the work for which it was intended."

Judging from the response of growers in the meeting, a state wide plan must be put over in New York, if the potato growers are to continue in business. Representatives from Monroe, Erie, Cayuga, Wyoming, Madison, Franklin, Allegany, Steuben, Ontario and Onondago counties have indicated that growers are ready for a state wide organization. But before New York can go ahead, there must be a great deal of preliminary work. The state must be mapped and districted to show where potatoes are grown and in what quantity. The cities must be districted as well as towns and villages.

There must be a survey made of the number of truckers hauling to cities and towns and the percentage of those who will or will not join. There must be campaigns to explain the contract to the farmer and his wife. Mr. Sapiro pointed out that the wife is as important as, and sometimes more influential than the grower himself, for contracts affect the home as well as the farmer. Other influences must be brought into line such as the Grange, the Farm Bureau, country newspapers, merchants, bankers, etc. It is very apparent that an association is needed in Northern New York, from a telegram which was received during the meeting which read as follows: "Franklin County potato industry needs marketing organization and will die out if not rescued from the bugs of ignorance, the blight of useless competition and the frost of present prices."

When the majority of folks are ready for it, then is the time to organize an association. This year it is very doubtful if an organization can be completed. In order to be effective it must be accomplished by July 1. Both in the minds of Mr. Sapiro and the officers of the association, it is very doubtful that anything could be accomplished before the first of July.

At the close of Mr. Sapiro's address a discussion followed relative to the organization of a state wide potato growers' association, many resolutions were proposed, amended and rejected. The final motion to be made and seconded was to the effect that the Board of Directors of the Empire State Potato Growers' Association adds to its body representatives of other potato growing sections not covered by the association and such other organization that it deems sufficiently interested to investigate a plan on the organization of a state wide potato growers' association. The personnel of this committee will not be complete for some time. As soon as it is complete it will be announced in the American Agriculturist.

NEW YORK MAPLE SYRUP CROP LESS THAN HALF NORMAL

HERSCHEL H. JONES

The members of the Board of Directors of the Maple Producers' Cooperative Association met last week at Syracuse to complete plans for handling this year's crop of maple syrup. The representatives of all the maple-producing sections of the State, which make up this board, without exception reported an extremely low production this year.

Due to weather conditions practically no trees were tapped in New York until after April 1, and in the more Southern counties the flow of sap has already ceased. In Delaware, Chenango, Greene, Cortland, Cattaraugus, Allegany and Wyoming the trees have already dried up and the producers have taken in their buckets. In Lewis, St. Lawrence, Franklin and Clinton, the prospect is for a few days more of good run, but the total production will be very much lower than last year. Altogether, the sugar and syrup production for the State will be less than 50 per cent of normal, according to all reports.

It is reported that in many sections of the State the commercial buyers have in the last week advanced their prices from $1.43 to $1.60 per gallon.

The Maple Producers have adopted a new financial policy for this season, and will not issue trade acceptances as advance payment on syrup, as last year. Their plant is now in good operating condition and ready to handle the new crop, which is expected in from the country to Syracuse in the next month.

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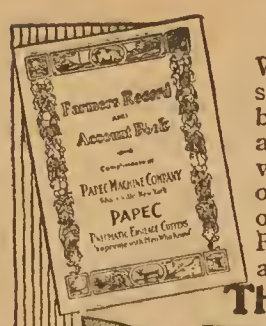

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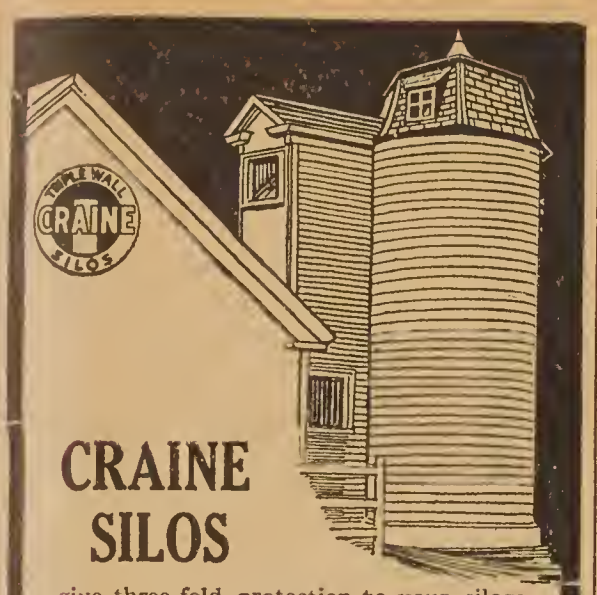

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March Milk Pool Price $2.20

Farm News From Albany and Farm Organizations

THE Dairymen's League Cooperative Association announces that the gross pool price for March is $2.20 per hundred. This price is 55c higher than the gross pool price of March a year ago.

From the gross pool price there will be deducted 7c per hundred for expenses, and 10c will be borrowed on the Certificate of Indebtedness plan. This leaves a gross cash price to farmers of $2.03 per hundred, which is 63c higher than the March price of last year. The gross price of February was $2.38.

Latest reports state the present conditions indicate that the milk market promises to be very satisfactory for the dairymen this coming season.

FARM NEWS FROM ALBANY

The New York Senate has adopted a resolution ordering an investigation of the quality of milk and butter in Albany. This resolution followed a preliminary investigation made by Senator Straus, which showed that the milk used in the Capitol Lunch Room was unfit for human consumption.

* * *

By a vote of 80 to 35, the Assembly passed the Witter bills, amending the Farms and Markets Law, to require that all ice cream, no matter what flavor, contain at least 8 per cent butterfat. The bill now goes to the Senate. In 1922 a law was enacted making the minimum standard of fat content at least 8 per cent in plain creams and 6½ per cent in creams to which confections were added. The present bill was introduced on complaint of the New York City Health authorities, who want one standard for all creams of 8 per cent minimum butterfat.

* * *

The Assembly has passed the Kirkland Bill, amending the Highway Law so as to provide that bridges on State highways are to be constructed by the State, and that similar bridges on county highways are to be paid for on a fifty-fifty basis by the State and county.

WESTERN NEW YORK NOTES

ALVA H. PULVER

Two more cold storage plants have been planned for Western New York this season, at Charlotte and Newark. The papers call for a capitalization of $200,000 on the Charlotte enterprise, with a capacity of 60,000 barrels, three floors and a basement, 120 by 140 feet. A 30-ton ice machine will be installed for the manufacture and sale of ice for local use, and the icing of cars for the New York Central. Arrangements will be made for the pre-cooling of fruit and packing rooms will facilitate the complete handling of peaches and other fruits direct from the orchards.

At Newark, the plans call for a plant with a capacity of 65,000 barrels, to cost $250,000. An ice-making plant will also be part of the equipment, with an output of 30 tons daily. The storage will be located near the Northern Central Railway, west of Murray street. Growers in both districts are naturally elated over the prospect of at last realizing that their dreams come true on facilities for storing fruit and vegetables. With the returns made by various other concerns of like nature, it is a practical certainty that both plants will return good dividends.

A district meeting of the Western New York Cooperative Packing Association was held at Albion on Friday, with an attendance of over 150 members, representing associations at Medina, Lyndonville, Knowlesville, Albion, Holley, Parma, Waterport, Kendall, and other points. Harry E. Wellman of Kendall, Chairman of the Production Committee, gave a report of his work and emphasized the need of producing better fruit. M. C. Burritt of the extension department of the State College, recommended to all members that they use the Farm Bureau spray service. Those present attested in the highest way to the merits of the service, many declaring that they received 50 cents more per barrel than neighbors who did not use the service.

In Wayne County, the farm Bureau is working out the spray information service for the coming season. Enrollment blanks have been sent the growers, and already over 600 have signed up for the season. When the spraying season opens it will be possible to reach all the growers receiving the service in about an hour's time. That this service, not only in Wayne County, but in all the other counties having such a service has been definitely proven of great value by the Western New York Cooperative Association, is shown by various checkups on the actual commercial pack of the members. It was found that the growers living in counties receiving the spray service will receive 97 cents more a barrel for Baldwins and 85 cents more a barrel for Greenings than the growers living in counties not having such a service. Last year there were 600 growers in Wayne County who received the service. It is expected that many more will register for the work this season.

COOPERATIVE COUNCIL MEETS

A meeting of the New York State Cooperative Council was held in Syracuse on Thursday, April 12. This organization is composed of representatives from every farmers' cooperative commodity organization in New York State. The Council meets to discuss and take action upon problems which concern all of the commodity organizations. It is the parallel organization to the New York State Conference Board of Farm Organizations, which is composed of representatives of the farm organizations not strictly in the commodity class. The members of the Conference Board are the New York State Grange, Dairymen's League Cooperative Association, Inc., New York State Federation of Farm Bureaus and the New York State Horticultural Society.

At its meeting at Syracuse, the Cooperative Council appointed F. E. Robertson, manager of the Wool Producers' Association; G. C. Gardinier, transportation expert of the G. L. F., and C. F. Hawes, Transportation Expert of the Dairymen's League, as a committee to study and report on the car-pooling plan of the National Railway Service Corporation. The Council also appointed another committee, consisting of Mr. Henry Burden of the Dairymen's League Cooperative Association, Thomas Wright of the New York Canning Crops Cooperative Association and Professor William E. Myers of the New York State College of Agriculture to study and make a report on the plan for making practical use in New York State of the new intermediate credit legislation recently passed by Congress.

Watch American Agriculturist for further news of the work of these two important committees and for articles explaining how the new intermediate credit legislation might be made of use to Eastern farmers.

We surely are pleased with your paper.—Mrs. J. ROLAND, Westover, Pa.

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are SUPERIOR because
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BERRY PLANTS Strawberry, Raspberry, Dewberry, Blackberry, Loganberry, Gooseberry, Currant, Grape plants.
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Keep them hungry.
Feed the old reliable

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Never mind about indigestion, diarrhea, leg weakness and gapes. Pan-a-ce-a takes care of all that. There will be wellness, cheer and good growth.

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Pan-a-ce-a will develop your pullets into early henhood—fall and winter layers.

Tell your dealer how many hens you have. There's a right-size package for every flock.

100 hens, the 12-lb. pkg. 200 hens, the 25-lb. pail
60 hens, the 5-lb. pkg. 500 hens, the 100-lb. drum
For fewer hens, there is a smaller package.

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I spent 30 years in perfecting Pan-a-ce-a.
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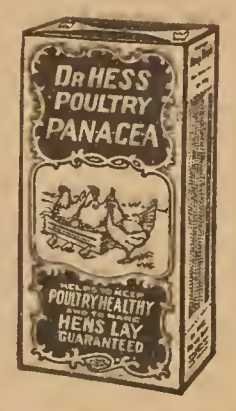

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A recent discovery promises to revolutionize all the commonly accepted methods for keeping poultry free from lice and mites. This wonderful product keeps the poultry always lice-free without the poultry raiser doing any work. It is the simplest, easiest, surest and best method ever discovered.

Hick's Lice-Go, which is the name of this remarkable lice remedy, is dropped in the chicken's drinking water. Taken into the system of the bird, it comes out through the oil glands of the skin and every louse or mite leaves the body. It is guaranteed to help the hatchability of the eggs and cannot injure the flavor of the eggs or meat; is harmless to chicks and does not affect the plumage. A few days' treatment at the start and then a little added to the drinking water each month is all that is necessary.

Send No Money—just your name and address to Chas. M. Hick & Company, Dept. 442, 1018 So. Wabash Ave., Chicago, Ill. A card will do. Mr. Hick is so confident that Hick's Lice-Go will get rid of every louse or mite that he will send you two large double strength $1.00 packages for the price of one. When they arrive, pay postman only $1.00 and postage. Sell one to your neighbor and get yours free. If you are not absolutely satisfied after 30 days' trial, your money will be refunded. This offer is guaranteed by two big Chicago banks, who say that Mr. Hick will do exactly as he agrees without question or argument. Write today before this remarkable trial offer is withdrawn.

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The King of the Barnyard

Turkeys Still a Profitable Side Issue

By LEO J. PETWAY

THE farm is preeminently the home of this lord of the poultry tribe; their broad acres form an ideal breeding ground, and provide an ideal environment and an abundance of foods admirably suited to his needs. Since turkey raising is not a business for village back-lotters, the world must look to the farms and ranches for its supply of this holiday bird; and just so long as people of wealth and affluence demand this royal bird on their festal boards and holiday feasts, just so long will it pay to raise turkeys, for the demand is much in excess of the supply; then there is the business of supplying fancy stock for breeders and exhibition purposes, which is very fascinating and remunerative.

Following is the method, in condensed form, of a very successful Mammoth Bronze turkey breeder, as given me, and is so good I am glad to pass it on to others: In early fall we select ten or twelve good hens and a nicely marked, large-framed, full-breasted Tom, unrelated.

Flock Not Too Large

THIS number gives us all the turkeys we care to raise early, and we don't fool with late ones, as they are hardly worth putting on the market before next fall, and the extra expense of keeping more hens is more than overcome by having a fine bunch of early turkeys all ready for market at once.

Then in the spring we put large barrels out, turned on the side, and plenty of burr oak leaves, or other large leaves in them, and before we made a three-acre pen we kept the hens near the house during laying time by feeding them a little if they started off, and this kept them near-by, and they all laid in these barrels.

When one gets ready to set, we give her 15 to 18 eggs in her own nest, and we have shutters made of poultry wire over a hoop to keep "varmints" out, and also if another hen is laying in the same nest it keeps her shut out, and she hunts another barrel.

As fast as we can we set the eggs under chicken hens, nine to the hen and two hens at once, as the fresher they are set the better they hatch. And as quick as a turkey hen gets broody, we give her these eggs and give the chicken hens more. In this way we get them hatched earlier and give every hen little ones, as we like to have plenty of hens with the young ones; as we never pen ours in a small pen, but just let the mother hen come off when she gets ready, and as she can not get out of the three-acre pen, she cares for her own babies from the time she begins hatching. She selects her own roosting place at night.

Lice the Worst Enemy

IT must be remembered that lice are about the worst enemies the turkey raiser has to contend with. We give the hens a liberal dusting with sodium fluoride, London Purple or some good insect powder when we set them and again in about ten days, and we treat the poults when hatched and often enough during the growing season to keep down all lice, though care must be used not to injure the tender young ones while warring on the vermin. Keep a sharp lookout for head lice; they are especially injurious.

We do not feed the poults until at least 36 to 48 hours old; then we feed them curd or corn bread three times a day and keep plenty of clean water in shallow vessels, where they can get at it all the time. They also like a thick shade and should be provided some fine grit.

We never confine them except during a rain or storm, as we find the mother hen can take better care of them when let alone, though we see that they have plenty to eat, so they will not have to rustle in the wet. We also feed the mother hens good to keep them contented. In this way we raise 95 per cent of all that hatch.

A person of limited means can take one turkey hen, and if they only raise ten turkeys to the hen, it will pay more than a cow, as these ten turkeys should average $5 each by fall, if like the past few years on the market, and the turkey is not the expense a cow would be, nor is the investment as great.

Then the mother or the girls can raise the turkeys and have a nice pocket full of money by Christmas, and, too, they are sure of a market for them, and they can be kept where one is not allowed extra cows.

If one is situated so he cannot raise a flock, he may be allowed a few hens, and there is always a ready market for the eggs at almost your own price.

FAVUS OR DEPLUMING MITES

I would like to ask the cause of my chickens losing their feathers? The house is just covered with feathers. The birds are young ones, hatched in April. At first they did not seem well, but they are doing nicely now. I have sold most of the roosters. They weighed from 2½ to 3 pounds. I keep wheat and cracked corn in front of them all the time as well as bran, corn meal and other ground feeds. I feed them some poultry tonic in their dry mash. They also have buttermilk and all the fresh water they wish to drink. They have the free run of the range, and are only confined at night in the house which is well ventilated.—J. A. SHULLENBERGER, Mercer County, Pa.

There are two factors which may be causing this condition in your birds. One possible cause may be the disease known as favus. The other may be due to what is known as the depluming mite.

Favus is a skin disease which usually begins about the eyes, soon spreading to the entire head. Sometimes it extends to all feathered portions of the body. Affected portions become covered with small white or gray scales which contain the spores of the disease.

It is caused by a fungus and may be communicated to other fowls. Affected birds should be removed from the flock and their quarters thoroughly disinfected. Poultrymen find a satisfactory remedy in the use of an ointment made up of one part of sulphur, one part of kerosene and two parts of lard. This is applied to the affected parts after they have been gently rubbed with a blunt-edged instrument to dislodge the scales. Another good ointment consists of one part of calomel and eight parts of vaseline.

In case the loss of feathers is caused by depluming mites, the birds should likewise be isolated. The sulphur ointment mentioned previously is found satisfactory by many poultrymen. Another consists of a 2 per cent creosote solution, while another consists of one dram creolin, two ounces glycerin, one-half ounce alcohol and one-half ounce water. This, painted on the affected parts, is found to be very satisfactory. Another good solution is one part of balsam of Peru mixed with three parts of alcohol.

The depluming mites attack the feather at the base just where the feather enters the sheeth. The feathers are cut off at this point. Naturally the action of the mites irritates the birds, and they soon get in the habit of pulling at their feathers, sometimes pulling out the feathers of birds roosting beside them.

IS "MOTHER OF VINEGAR" GOOD?

I have heard that "mother of vinegar" is wonderful as a moistener of dry poultry mashes and stops hens from eating their eggs. Is this a fact?—W. G. N., New York.

Egg-eating is a habit that is usually started by the hen laying soft-shelled eggs due to improper feeding and insufficient exercise with an accumulation of hard fat in the abdomen. Right methods of feeding and nests partly secluded will usually prevent this. Hens secrete almost no saliva in their mouth, hence do not like mash dry as well as they do when it is moistened. Nevertheless experiments have shown that dry mash maintains better health and gives better egg production than it does when moistened.

Hens will readily eat any moist mash no matter what it is "moistened" with, but I doubt if they would eat mother of vinegar if it was fed alone. Acids of this kind are also liable to cause indigestion.—W. G. K.

Pure Bred vs. Good Bulls

Emphasis Should Be Placed On Quality, Not Name

By A. H. De GRAFF

IN nearly all advice on breeding up a herd of dairy cows great emphasis is placed on the purchase of pure-bred bulls. In my opinion, this is a mistake. I do not mean to say that the pure-bred bull is not desirable, but the emphasis should be placed on the "bull," not on the "pure bred."

In all the more advanced dairy sections, the cattle are pretty well graded up to the desired breed. In New York market milk sections this is mostly Holstein. One sees probably three grade Holsteins to one of all others. The type has been pretty largely fixed by now. A point which is not usually understood by farmers is that very often high-grades are in all respects, except in eligibility to registry, the same as pure breds.

According to Mendel's law, we can get pure-bred offspring from crossed ancestry. If we cross black guinea pigs with white ones, all of the offspring are black. These black crosses are, however, carriers of the white characteristics in a latent form. When we breed these black hybrids, we get offspring in the proportion of one white to three black. By further breeding we find that one of these black guinea pigs out of three is pure-bred black, and will breed true with other blacks. Two out of the three black offspring of the second breeding are hybrids, like their parents, and the white one is a pure-bred white. It will breed true with other whites. In cattle, this is not so simple as in this case of guinea pigs, but every farmer has observed that after several crossings with pure-bred sires we have cattle which can hardly be told from pure breds and which will breed true. These are for all practical purposes (except registry) pure bred.

When it is necessary to change over the cattle of a section from a beef type to a dairy type, or when they are badly mixed . . . . scrubs, as they are called, pure breds are very valuable. They have only one line of blood. Their offspring are much more likely to resemble them than they are the dam, which has perhaps a dozen strains in her. One changes his mongrels or his beef herd into a dairy-type herd. When he has accomplished this, he has nearly always bred in superior milking qualities.

Type, then Production

AFTER he has a dairy-type herd, the next thing to be considered is the possibility of continuing the improvement in milking qualities. The average pure bred is better than the average scrub or beef cow, but she is not necessarily better than the average grade. A good many pure bred men will deny this, but observation will confirm it. The reason is very simple. A grade cow has, aside from her meat value, only one reason for living. She produces milk. If she does not produce enough, she very soon gets the razz. The pure bred has two reasons for living. She can confer the privilege of registry on her offspring. The natural result is that most any pure bred is kept. This results in a lowered standard for milk production, and the poor pure breds and their poor offspring lower the average of all.

Many farmers believe that pure breds are less strong constitutionally than grades. If so, this is for the same reason—the survival of the unfit with the fit.

The practical application is as follows: The dairyman with grades cares only for two things, milk production and health of his herd. Looks also enter in, but they are not at all a deciding factor. If he can get higher milk production by using a pure-bred sire, he wants to do it. If not, he can see no reason at all for spending the extra money.

The question resolves itself, then, into this: Can one get as good offspring from the grade bulls available as from the pure breds available. This again is entirely a matter of finance. In the pure-bred game, the bull calf of a very large producer is worth far more than a heifer calf from the same animal. In general, the best class of bulls are pretty high. Then there is a class below these which is not so high, but which are still very good. The rest, which may still cost a fairly high price, are not as good as the best grade bulls. Grades have very little money value, hence one can take his pick for a song.

It seems to me that the value of the best grade bulls as sire for the herd has been overlooked. I have had it brought to my attention rather forcibly. A neighbor had the best herd in the two cow-testing stations of the county. All his cattle were grades. I was visiting him one day and got to talking the matter of pure-bred sires over with him. I was surprised to find that out of his twelve cows seven were sired by grade bulls, and these seven were the best, that is, all seven beat the other five, which were sired by pure breds. Three of these seven were among the best ten cows in the entire cow-testing association.

He said that the grades had more stamina, the reason in my opinion for this showing, was that he was able to get the very pick of bull calves for perhaps ten dollars when he bought a grade to raise. When he bought a pure bred for a twelve-cow dairy, he could not afford to pay perhaps $100 for a calf. That would make too much overhead. The result was that the grade he would buy would have the advantage.

My opinion is that the pure bred is superior to the grade if the sire and dam are superior or even equal to those of the grade. On the other hand, unless the pure bred is superior I should prefer the grade.

Another very interesting illustration of what a poor pure-bred sire can do to a herd is the experience of the South Dakota Experiment Station in grading up beef cattle. They took several grade Herefords and cared for them with their dairy cattle, and bred them to pure-bred Holstein bulls. One of these will serve as an illustration.

(*Continued on page* 370)

Is a Pure Bred Always Good?

A LOT of dairymen will disagree with Mr. De Graff's article on this page about the value of a pure-bred bull. A lot more will think that he has hit the nail exactly on the head. Therefore this is the kind of an article we like to publish, for it causes thought and brings out both sides of an argument, which results in conclusions founded on all the facts.

Personally, we think that Mr. De Graff is right in saying that the emphasis should be placed on the "bull" and not on the "pure bred," but, we believe that there is a much better chance of getting a good bull from pure-bred stock than there is from grades. The best proof of this is that the greatest milk and butterfat records have all come from cows sired by pure-bred bulls.

We emphatically disagree with Mr. De Graff in his statement that a grade cow that does not produce enough, "very soon gets the razz," while the pure bred is always kept on for breeding purposes. When we think of the literaly millions of poor-grade cows, some of which can be found in nearly every dairy in the land, cows that never have paid and never will pay, yet are still carried year after year, we fail to see where the "razz" on grade cows comes in. On the other hand, in the great majority of pure-bred dairies, the breeders are particularly interested in improving production, and knowing what their production is by accurate records there is a constant tendency to weed out the poor ones.

Don't miss this important discussion, and whether you agree or disagree, let us have your views in a short letter.—The Editor.

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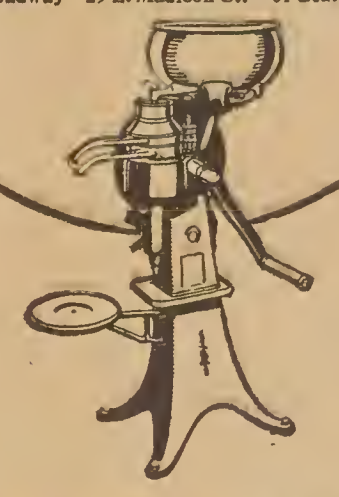

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REGISTERED HOLSTEIN SERVICE BULL, year old, and bull calf from high producing dam, tubercular tested, priced low. ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

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REGISTERED HOLSTEIN HEIFER, 4 months old, by a grandson of Pontiac Korndyke, for $40. W. E. GORMAN, Upper Darby, Pa.

FOR SALE—Registered Ayrshire bull calves, bred for production. Prices reasonable. RAY E. MEAD, Hornell, N. Y.

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LIVE-BRED BULL CALF, best of breeding, send for pedigree, out of a Raleigh bull. O. H. BOWERS, Hadley, Pa.

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FOR SALE—7 heifers; 1 bull; 1 team, 5, 6 years old. CARL COTLIE, Parishville, N. Y.

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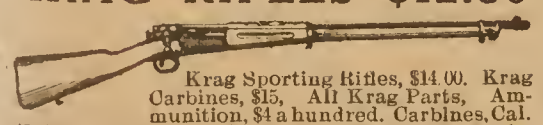

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The World's Greatest Scourge

(*Continued from page* 355)

the same story, that the ruins and remnants of Crete show an extraordinary degree of civilization in that land four or five thousand years ago. And yet these civilizations, so advanced, so perfected, had so completely disappeared that it is only the work of scientific observers in the last few years that has brought any trace of their existence to light.

"But I take the case of Rome. I agree we know more about Rome than we do about Egypt and Crete. But I do not think that it is realized how far Roman civilization had advanced. I was told the other day that when, in 1835, the English Minister, Sir Robert Peel, was summoned hastily from Rome to create a government in my country he took precisely the same time, no more, no less, than a Roman Emperor would have taken in performing the same journey 1,700 years earlier. Yet the Roman civilization perished, barbarism recovered occupation of the whole of Europe, and the condition of my country and of the greater part, if not the whole, of European countries relapsed so that that civilization became a mere dream and memory.

Why Rome Perished

"It is said often that Rome perished by reason of the invasion of the barbarism round her borders. Ladies and gentlemen, there is no truth in that delusion. Rome perished because the sections and nations which made up the Roman Empire were unable to keep from fighting with one another, and they destroyed the Roman structure and the barbarians merely came in to the scene of the crime after it had been committed. Rome committed suicide, let us take care that our civilization does not commit suicide also.

"And if we are to work for real peace, a real established peace, be well assured that we have no security for its permanence unless we succeed in limiting and reducing the armaments of the world. There is no use to hope that there is any real security for permanent peace so long as the nations stand on one side or the other of their border armed to the teeth for aggressive warfare. Every one agrees to that not only in this country, but practically all over the world. There is no dissenting voice, they all say armaments should be reduced; and yet at this moment no reduction has taken place in the aggregate.

"Some of the great nations have reduced to some extent their numbers from just before the war, but other great nations, and other nations not so great, but just as warlike, called into existence by the peace, have each insisted on their armed establishment, and in spite of the fact that Germany has very largely been disarmed, I am told that the net amount of armed men in Europe is greater than it was before the late war.

An Economic Drain

"That is not only a very serious thing for the cause of peace ultimately, but it constitutes an economic drain on the resources of Europe much too much for her in her present condition and which it can ill afford to bear, and the worst of it is that armaments breed armaments. If one country is armed, the next country is armed. If one increases its armament, the next country increases its armament. We read sometimes in the papers of terrible cases of human beings who have become addicted to some of these horrible drugs, morphine, cocaine or the like, and they go on taking more and more of them until they are ruined body and soul. We call them drug maniacs. Ladies and gentlemen, I fear very much that there are some armament maniacs left among the nations of the world.

"We who really seriously desire peace, who are not only talking about it, but wish to do something for it, let us consider for a moment what is the cause of this horrible state of things. Well, ladies and gentlemen, the disease is a fearful one, but luckily, the diagnosis is simple. What keeps alive armaments is one thing, and one thing only. It is the fear and suspicion of the nations for one another. It is the bottom of most of the troubles that afflict our world at the present time. Well, what is the remedy for that? Why, the remedy is simple enough, at any rate simple enough to pronounce. We must have a new spirit in international affairs.

"We must get rid of the idolatry of force. We must get the nations to recognize—and many, many millions of them do recognize it that it is not force that counts in human affairs, but reason and persuasion. We all recognize that in our individual capacity. Force does not count in our individual lives. It is not in motive that really has any importance for us. If we look at the great organization of a city like this, the peculiar arrangements are not the result of force. It is not that you or those who live here are afraid of violence if they do not conform to the usages of civilized society. They do it voluntarily. The vast mass of their actions, the vast number of those proceedings which make life in a great city or life in the country possible, tolerable, for those who live there. Why, there is nothing more powerful in the world than the public opinion of your fellows. It governs your dress, it governs what you eat, it governs what you play at; it governs almost everything you do from our business to your pleasure, from morning until evening.

"It is public opinion which governs, next to your self-respect and your own judgment of what is right; it is public opinion that governs you throughout the whole of your life. And what is true with individuals is true, or ought to be true, with nations, provided you take the proper steps to concentrate, develop and publish public opinion throughout the world, so that a nation bent on a desperate effort to assassinate its neighbor will be restrained by the obloquy of the whole civilized world. And the first condition that is necessary for that is to get rid of these vast threatening large armaments which prevent the full course of public opinion throughout the world.

What Conditions are Necessary?

"Well, now, what are the conditions which are necessary to fulfill if you are to induce the nations of the world to disarm? You have no great land armaments in this country. Why? Because you are not threatened by any neighbors who desire to attack you—oh, not seriously threatened! If you could get the same state of mind in Europe you would get the same result. If you could say to the nations of Europe: 'Don't be afraid. There is no real danger. You may sleep quietly in your beds. You may put off once for all this vast burden of armaments. You may cease to create dangers for your neighbors on the effort to create safety for yourself.'

"And you must do that by saying to nations, when we ask them to disarm: We will give you security which will enable you to dispense with armaments. I believe that can be done. I believe that, take a continent, a quarter of the globe, like Europe, if all the nations there were to agree that if each of them reduced their armaments to an agreed amount, all of them would come to the assistance of any one of them who was attacked—just think what a splendid advance that would be! It would rule out aggressive attack forever. Aggressive attack would be so dangerous that no nation would ever undertake it.

Get Rid of Aggression

"If you get rid of aggression, you get rid of war, because war must begin by aggression on one side or the other. I am firmly convinced that an arrangement of that kind in Europe would be of enormous advantage, and I would like to see as part of that arrangement an agreement among the nations, at any rate among the nations who felt themselves in danger of attack, that there should be a zone between nation and nation, demilitarized and made incapable of being used without delay and preparation for the advance of an invading army, so that the guaranty offered to them by other nations in Europe would become effective before it was too late. That is the kind of scheme by which I think security might be given.

(*Continued on page* 367)

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The Valley of the Giants—*By Peter B. Kyne*

COLONEL PENNINGTON drove up to the business center of the town. The streets were deserted, but one saloon—the Sawdust Pile—was still open.

The Colonel approached the table where the Black Minorca sat, and touched the *cholo* on the shoulder. The Black Minorca turned, and Pennington nodded to him to follow; whereupon the latter cashed in his chips and joined his employer on the sidewalk. Here a whispered conversation ensued, and at its conclusion the Black Minorca nodded vigorously.

"Sure!" he assured the Colonel. "I'll fix 'em good and plenty."

Together Pennington and the Black Minorca entered the automobile and proceeded swiftly to the Laguna Grande Lumber Company's mill-office. From a locker the Colonel produced a repeating rifle and three boxes of cartridges, which he handed to the *cholo*.

Twenty minutes later, from the top of a lumber-pile in Cardigan's drying-yard, Bryce Cardigan saw the flash of a rifle and felt a sudden sting on his left forearm. He leaped to gain the shelter of the engine, and another bullet struck at his feet and ricocheted off into the night. It was followed by a fusillade, the bullets kicking up the freshly disturbed earth among the workers and sending them scurrying to various points of safety.

"I don't think he's hurt anybody," Buck Ogilvy whispered as he crouched with Bryce beside the engine, "but that's due to his markmanship rather than his intentions."

"He tried hard enough to plug me," Bryce declared, and showed the hole through his sleeve. "They call him the Black Minorca, and he's a mongrel greaser who'd kill his own mother for a fifty-dollar bill."

"I'd like to plug him," Buck murmured regretfully.

"What would be the use? This will be his last night in Humboldt County——"

A rifle shot rang out from the side of B Street; from the lumber-pile across the street, Bryce and Ogilvy heard a suppressed grunt of pain, and a crash. Instantly out of the shadows George Sea Otter came padding on velvet feet, rifle in hand—and then Bryce understood.

"All right, boss," said George simply as he joined Bryce and Ogilvy. "Now we get busy again.'"

"Safe-o, men," Ogilvy called. "Back to the job." And while Bryce, followed by the careless George Sea Otter, went into the lumber-yard to succor the enemy, Ogilvy set an example to the men by stepping into the open and starting briskly to work with a shovel.

At the bottom of the pile of lumber the Black Minorca was discovered with a severe flesh-wound in his right hip; also he was suffering from numerous bruises and contusions. George Sea Otter possessed himself of the fallen *cholo's* rifle, while Bryce picked the wretch up and carried him to his automobile.

"Take the swine over to the Laguna Grande Lumber Company's hospital," he ordered George Sea Otter. "I'll keep both rifles and the ammunition here for Jules Rondeau and his woods-gang. They'll probably be dropping in on us about two a. m."

CHAPTER XXVII

HAVING dispatched the Black Minorca, Colonel Pennington fairly burned the streets to his home.

The violent slam with which he closed the front door brought Shirley, in dressing-gown and slippers, to the staircase.

"Uncle Seth!" she called.

"Here!" he replied from the hall below.

"What's the matter?"

"There's the devil to pay," he answered. "That fellow Cardigan and Ogilvy have a gang of fifty men at the intersection of Water and B streets, cutting in a jump-crossing of our line."

He dashed into the living room, and she heard him calling frantically into the telephone.

"That you, Poundstone?" she heard him saying. "Pennington speaking. Young Cardigan is behind that N. C. O. outfit, and it's a logging-road and not intended to build through to Grant's Pass at all. Cardigan and Ogilvy with a gang of fifty men are cutting in a jump-crossing of my line!

"Telephone the chief of police and order him to take his entire force down there, if necessary, and stop that work. To blazes with that temporary franchise! Tell the chief of police not to recognize it. He can be suspicious of it, can't he, and refuse to let the work go on until he finds you? And you can be hard to find, can you not? Delay, delay, man! . . . Yes, yes, I understand. You get down about daylight and roast the chief of police for interfering, but in the meantime! . . . Thank you, Poundstone, thank you. Good-bye."

He stood at the telephone and when he spoke again, Shirley knew he was calling his mill-office. "Sexton? Pennington speaking. I've sent over the Black Minorca with a rifle and sixty rounds of ammunition. . . . What? You can hear him shooting already? Bully boy! He'll clean that gang out and keep them from working! You've telephoned Rondeau, have you? . . . Good! As soon as the switch-engine starts for the woods, meet me down at Water and B streets."

Shirley was standing in the doorway as he faced about. "Uncle Seth," she said quietly, "use any honorable method of defeating Bryce Cardigan, but call off the Black Minorca."

"Silly girl!" he soothed her. "Don't you know I would not stoop to bushwhacking? It's wild shooting, just to frighten Cardigan and his men off the job."

"You can't frighten him," she cried passionately. "You know you can't. He'll kill the Black Minorca, or the Black Minorca will kill him. Go instantly and stop it."

"All right, all right!" he said rather humbly, and sprang down the front steps into the waiting car. "I'll play the game fairly, Shirley, never fear."

SHE stood in the doorway and watched the red tail-light, like a malevolent eye, disappear down the street. And as she stood there, down the boulevard a huge gray car came slipping noiselessly. It was Bryce Cardigan's Napier.

"George!" she called. "Come here."

The car stopped at the sight of the slim white figure running down the garden walk.

"Is Mr. Cardigan hurt?" she demanded in an agony of suspense.

George Sea Otter grunted contemptuously. "Nobody hurt 'cept the Black Minorca. He tried to shoot my boss, so I shoot him myself once through the leg. Now my boss says: 'Take him to the Laguna Grande hospital, George.' Me, I would drop this greaser in the bay."

She laughed hysterically. "On your way back stop and pick me up, George," she ordered.

Meanwhile Colonel Pennington had reached the crossing, simultaneously with the arrival of Sam Perkins, the chief of police, accompanied by two automobiles crammed with patrolmen. Perkins strutted up to Bryce.

"What's the meaning of all this row, Mr. Cardigan?" he demanded.

"Something has slipped, Sam," Bryce retorted pleasantly. "You've been calling me Bryce for the past twenty years! The meaning of this row?" Bryce continued. "Well, I'm engaged in making a jump-crossing of Colonel Pennington's tracks, under a temporary franchise granted me by the city of Sequoia." And he thrust the document under the police chief's nose.

"This is the first I've heard about any franchise," Sam Perkins replied suspiciously. "Seems to me you been mighty secret about this job. How do I know this ain't a forgery?"

"Call up the mayor and ask him," Bryce suggested.

"I'll do that," quoth Mr. Perkins ponderously. "And in the meantime, don't do any more digging or rail-cutting." He hurried away to his automobile.

"Also in the meantime, young man," Colonel Pennington announced, "you will pardon me if I take possession of my locomotive and flat-cars. I observe you have finished unloading those rails."

"Help yourself, Colonel," Bryce replied.

With the greatest good nature in life, Pennington climbed into the cab, reached for the bell-cord, and rang the bell vigorously. Then he permitted himself a triumphant toot of the whistle, after which he threw off the air and gently opened the throttle.

WITH a creak and a bump the train started, and the Colonel ran it slowly up until the locomotive stood on the tracks exactly where Buck Ogilvy had been cutting in his crossing; whereupon the Colonel locked the brakes, opened his exhaust, and blew the boiler down.

"That engine being my property," he announced, "I'll take the short end of any bet you care to make, young man, that it will sit on those tracks until your temporary franchise expires. I'd give a good deal to see anybody not in my employ attempt to get up steam in that boiler until I give the word. Cut in your jump-crossing now, if you can, you whelp!"

"I rather imagine this nice gentleman has it on us, old dear," chirped Buck Ogilvy plaintively. "Well! Let us gather up our tools and go home, for something tells me that if I hang around here I'll bust this sleek scoundrel's gray head! Hello! Whom have we here?"

Bryce turned and found himself facing Shirley Sumner. Her lip was quivering, and the tears shone in her eyes like stars. He stared at her in silence.

"My friend," she murmured tremulously, "didn't I tell you I would not permit you to build the N. C. O.?"

He bowed his head in rage and shame. Buck Ogilvy took him by the arm. "'Tis midnight's holy hour,'" he quoted, "'and silence now is brooding o'er a still and pulseless world.' Bryce, old chap, this is one of those occasions where silence is golden. Speak not. I'll do it for you. Miss Sumner," he continued, bowing graciously, "and Colonel Pennington," favoring that triumphant rascal with an equally gracious bow, "we leave you in possession of the field—temporarily. However, if anybody should drive up in a hack and lean out and ask you, just tell him Buck Ogilvy has another trump tucked away in his kimona."

Bryce turned to go, but with a sudden impulse Shirley laid her hand on his arm—his left arm. "Bryce!" she murmured.

He lifted her hand gently from his forearm, led her to the front of the locomotive, and held her hand up to the headlight. Her fingers were crimson with blood.

"Your uncle's killer did that, Shirley," he said ironically. "It's only a slight flesh-wound, but that is no fault of your allies. Good-night."

And he left her standing, pale of face and trembling, in the white glare of the headlight.

CHAPTER XXVIII

SHIRLEY made no effort to detain Bryce Cardigan. Ogilvy remained long enough to order the foreman to gather up the tools, and dismiss his gang; then he, too, entered the automobile, and at a word from Bryce, the car slid noiselessly away into the darkness. The crew departed a few minutes later, and when Shirley found herself alone with her uncle, she gave way to the tears she could no longer repress. Pennington stood by, watching her curiously.

"Well, my dear?" he queried nervously.

"I—I think I had better go home," she said without spirit.

"I think so, too," he answered. "Get into the flivver, my dear. And perhaps the least said the better, Shirley. There are many things that you do not understand.

"I can understand an attempt at assassination, Uncle Seth."

"That blackguard Minorca! I told him to bluff and threaten. While I gave him orders to shoot, I told him distinctly not to hit anybody. Good Lord, Shirley, surely you do not think I would wink at a murder!"

"I do," she answered passionately. "With Bryce Cardigan out of the way, you would have a clear field before you."

"At another time and in a calmer mood we will discuss that villain," he said authoritatively. "If we argue the matter now, we may quarrel, and that is something neither of us can afford. Get into the car, and we will go home."

"Your sophistry does not alter my opinion," she replied firmly. "However, as you say, this is neither the time nor the place to discuss it."

THEY drove home in silence. Shirley went at once to her room. For the Colonel, however, the night's work had scarcely begun. The instant he heard the door to his niece's room shut, he went to the telephone and called up the Laguna Grande roundhouse. Sexton, his manager, answered.

"Have you sent the switch-engine to the woods for Rondeau and his men?"

"Just left."

"Good! Now, then, Sexton, listen to me: As you know, this has developed so suddenly I am taken by surprise and have had no time to prepare the kind of counter-attack that will be most effective. However, with the crossing blocked, I gain time in which to organize. I am proceeding to San Francisco to-night by motor. I will arrive late to-morrow night, and early Saturday morning I will appear in the United States District Court with our attorneys and file a complaint and petition for an order temporarily restraining the N. C. O. from cutting our tracks.

"I will have to make an affidavit to support the complaint, so I had better be Johnny-on-the-spot to do it. The judge will sign a restraining order, and after I have obtained it, I will have the United States marshal telegraph it to Ogilvy and Cardigan!"

"Bully!" cried Sexton heartily.

"In the meantime," Pennington continued, "we need that locomotive for its legitimate purposes. Take all that discarded machinery we removed from the mill last fall, dump it on the tracks at the crossing, and get the locomotive back on its run. Understand?"

"Yes, sir."

"I'll be back Sunday forenoon."

He hung up, went to his chauffeur's quarters and routed the man out of bed. Then he returned to his room, dressed and packed a bag, left a brief note for Shirley, and started on his two-hundred-and-fifty-mile trip.

Quite oblivious of her uncle's departure, Shirley lay awake, turning over and over in her mind the various aspects of the Cardigan-Pennington imbroglio. Of one thing she was quite certain; peace must be declared at all hazards. She had been obsessed of a desire, rather unusual in her sex, to see a fight worth while;

(*Continued on page* 367)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

BRYCE CARDIGAN and Buck Ogilvy are determined that that jump-crossing shall go in. Colonel Seth is equally determined that it shall not. A battle royal is in progress, Bryce and Buck having outwitted the Colonel by obtaining a franchise, the Colonel being the stronger, however, both in finances and because he is utterly unscrupulous.

Shirley fights fairly, and is just beginning to suspect her uncle's methods in protecting their joint interest. She has managed to maintain her friendship with Bryce and also with Moria MacTavish, his office aide, with whom redheaded Buck has fallen deliriously in love. Through Bryce, Shirley obtains a dictograph to overhear the secret conversation of her uncle and Mayor Poundstone.

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437
Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

World's Greatest Scourge

(*Continued from page* 365)

"But it is evident that for that scheme to be effective you must create or utilize some international authority. Disarmament to be effective must be general. You will never get one nation to disarm as long other nations arm. If you are to carry out a general scheme of disarmament, you must have an international organization to supervise it. If you are to have a scheme of zones, of demilitarized zones, you must have an international authority to overlook it.

But you have got to do something much more than that, you have got to carry out and apply not to Europe only, but to all nations, you have got to carry out a scheme of moral disarmament as well as material disarmament. You have got to bring the nations together, to teach them that their common interests are far greater than their common antagonisms, to teach them that just as it is true of individuals that we are all parts one of another, and that if individuals in a great community suffer, then the whole community suffers; so we must teach the nations of the world that they are all parts of one common whole; and that it is untrue, a devilish untruth, that there is any advantage to any one nation in the misfortunes or the poverty of others.

International Cooperation

"International cooperation is not only a proper object, it is inevitable. If there are more than a million men now out of work in England, it is because, very largely if not entirely, of the economic difficulties which are in operation in the rest of Europe. If the farmers of the United States are unable to sell their wheat at a remunerative price, it is because their customers in Europe are unable to buy it. The economic interdependence of the world is a great fact; it is not a thing about which we need argue, it is a fact which we cannot get out of, and if the economic interdependence of the world fact, much more is the scientific, the intellectual, the moral interdependence of the world a fact also.

"We must recognize that there are great common interests in the world, and we must do our best to provide for them. There are great moral evils which affect the whole world.

"Therefore we must have, surely we must have at any rate for those purposes, periodic meetings, conferences, discussions, some kind of machinery to make those discussions and conferences effective; and let us add, surely we may add this, some kind of machinery for diminishing the danger of international disputes, and preventing disputes from degenerating into war. Is that so very unreasonable? Does that really offend any of our prejudices, or any of our preconceived opinions? And that, ladies and gentlemen, as you all know, is fundamentally all that the League of Nations proposes to do."

The Valley of the Giants

(*Continued from page* 366)

she realized now, however, that she had permitted matters to go too far. A revulsion of feeling against her uncle, induced by the memory of Bryce Cardigan's blood on her white finger-tips, convinced the girl that, at all hazards to her financial future, henceforth she and her uncle must tread separate paths. She had found him out at last.

It was rather a relief, therefore, when the imperturbable James handed her at breakfast the following note:

SHIRLEY, DEAR:

After leaving you last night, I decided that in your present frame of mind my absence for a few days might tend to a calmer and clearer perception, on your part, of the necessary tactics which I saw fit to pursue last night. And in the hope that you will have attained your old attitude toward me before my return, I am leaving for San Francisco. I do not feel equal to the task of confronting you until, in a more judicial frame of mind, you can truly absolve me of the charge of wishing to do away with young Cardigan.

Your affectionate
UNCLE SETH.

(*Continued next week*)

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Capacity!

Every man who milks cows for a living knows that *Capacity* and the ability to profitably utilize feed mean the difference between profit and loss.

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SIRE Korndy Re Pontiac Glista No. 268342, a grandson of the great Cornell Cow Glista Ernestein with seven records of over 30 lbs. butter in seven days. Best record 677.3 lbs. milk, 34.22 lbs. butter seven days.

DAM Small Hopes Cornucopia Beauty A. R. O. Record: 3 years old, 74.5 lbs. milk 1 day, 492.8 lbs. milk, 18.07 lbs. butter 7 days. Her sire is a descendant of the King of the Pontiacs and Aggie Cornucopia Johanna Ladd.

This calf is ⅞ white, very large and straight. Price $75.00.

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From 2 to 16 months old, sired by Gov. 2nd of the Rouettes 45451, son of Gov. of the Chene, 1297, and Beauty of the Rouettes, 2836; milk 14,298 lbs., fat 739 lbs. Out of A. R. Dams. For particulars apply to

THOS. JOHNSON
Spring Farm, Tilly Foster, New York

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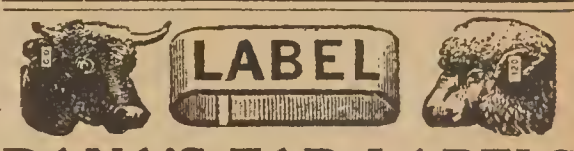

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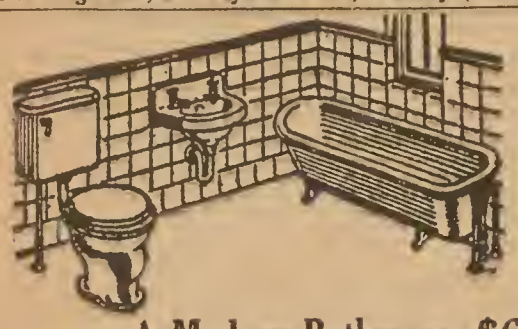

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Stomach Disorders

Dr. West Tells How to Avoid Them

OF all the ailments to which human flesh is heir, the most common is undoubtedly — *indigestion.* We speak of indigestion as a disease, but it is merely a symptom. The condition may exist alone; it may be the forerunner of some more serious stomach disorder, and it always accompanies grave organic trouble. For instance, in tuberculosis of the lungs, indigestion is sometimes the only symptom, and in that insidious disease, cancer of the stomach, the first warnings are always those of indigestion.

In a well person, symptoms referable to the stomach are not always due to overeating. Just as the voice may be affected when we are tired, so physical and mental strain affect the digestion; if, then, we eat a heavy meal when overfatigued, the stomach cannot handle the food, and an attack of acute indigestion may follow. This disorder is sometimes so severe as to cause death by pressure of gas upon the heart. When gas arises and causes painful distention of the stomach, it can be quickly removed with half a teaspoonful of pure sodium-bicarbonate dissolved in a cup of very hot water. The heat allays pain, the soda brings up the gas, and relief is usually quite prompt. If there is a desire to vomit, it should be encouraged, as unloading the stomach is the speediest way to end the trouble. Never fail to loosen the clothing at waist and neck.

A severe chill may precede an attack of acute indigestion. Hot water, sipped slowly, a hot-water bag at the feet and a mustard plaster over the stomach will bring a quick response. The plaster must be hot. After the acute symptoms have subsided, the entire intestinal tract should be swept clean with a dose of castor oil. The objections to this excellent remedy can be overcome by keeping on hand the following mixture: Castor oil, 8 ounces; oil of wintergreen, 10 minims; oil of cinnamon, 2½ minims; saccharine, 2½ grains; alcohol, ½ ounce. Mix.

For several days after an acute attack of this kind, the diet should consist of milk, rice, farina and similar bland foods.

Even a Patient Stomach Rebels

Chronic indigestion may exist for years without giving rise to anything more serious than discomfort after eating. Some persons always experience this condition after a heavy meal, on eating hurriedly, or on partaking of certain foods.

The stomach is the most primitive organ in the body, and therefore one of the most tolerant; it adjusts itself to the treatment accorded it, but chronic indigestion unfits the system to *resist* troubles in other regions. Therefore the affection should not be allowed to continue. If we chew every particle of food to a creamy mass before swallowing, stomach disorders would quickly vanish. "Bolting" our meals is at the root of much digestive trouble. It is better to eat less and to eat light foods if we cannot take the time to chew thoroughly a heavy meal.

How we eat is really more important that *what* we eat. Many of those who suffer with derangements of the stomach are unable to chew their food thoroughly because of defective teeth. I cannot repeat too often that digestion really begins in the mouth. Unless you have good teeth, you cannot properly chew your food. The act of chewing and the taste of food stimulates the flow of saliva. Now, the function of saliva is not only to moisten food, but what is vastly more important, it converts starches into the more digestible sugars. If, therefore, a meal is hastly swallowed you not only hamper the stomach with a mass of heavy material, but you further cripple it with starches that cannot be digested in the gastric juice, which is acid in its chemical reaction. This food must wait until it passes out of the stomach into the small intestine, where it again finds an alkaline medium, to complete the act of digestion. You will also understand now why we are advised not to drink anything while eating. Many wash their food down with copious draughts of water. The effect of this is threefold: it prevents dry food from stimulating the proper flow of saliva; it softens the mass of food and interferes with the action of saliva, thus checking the first act of digestion; it prevents the thorough mastication of food.

Taking liquids with meals is not a bad habit, if the liquid is not used to moisten and wash down food. To sip water between each mouthful or at the beginning and end of a meal acts as a solvent upon the material in the stomach, and so assists in the digestion and absorption of nutriment.

This explains why proper and careful habits of eating are in themselves sufficient to correct many digestive ills.

How to Deal with Dyspepsia

In former years the term "dyspepsia" was applied to various disorders of the stomach. General debility usually follows years of chronic indigestion and the word dyspepsia covers the condition.

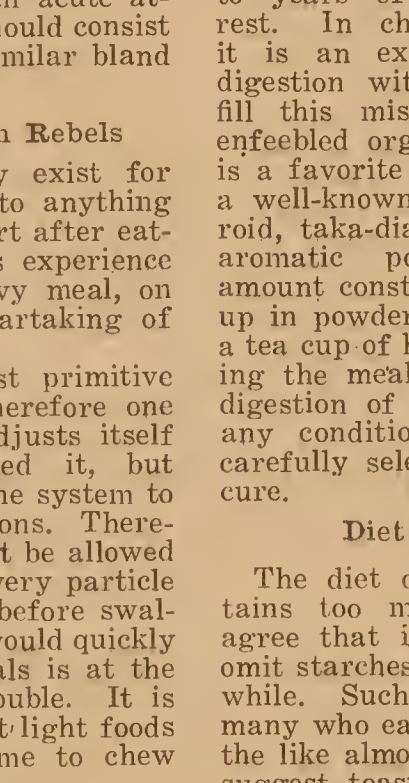
Dyspeptics should first ask themselves the question: Is my mouth healthy? which of course includes the teeth. If your teeth are poor, let this be your first care. Stomachic troubles are sure to follow in the wake of an unhealthy mouth or insufficient teeth with which to grind your food thoroughly.

Organs that have been subjected to years of constant abuse require rest. In chronic stomach disorders, it is an excellent plan to aid the digestion with such remedies as fulfill this mission without taxing the enfeebled organ itself. The following is a favorite combination employed by a well-known stomach specialist. Caroid, taka-diastase—of each 5 grains; aromatic powder, sufficient. This amount constitutes one dose. It is put up in powder form and is dissolved in a tea cup of hot water to be sipped during the meal. This mixture aids the digestion of all kinds of food, but in any condition of gastric trouble, a carefully selected diet will hasten the cure.

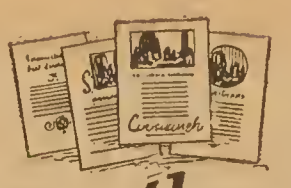
Diet is All-Important

The diet of most "dyspeptics" contains too much starch. Authorities agree that it is an excellent plan to omit starches and sugars entirely for a while. Such a diet is a hardship to many who eat white flour, potatoes and the like almost exclusively. To these I suggest toast, zweibach, crackers, dry crusts, sugar limited to the smallest amount; easily digested fats, that is, cream, butter, oil; all green vegetables steamed in their liquor (not boiled in water, which deprives them of their mineral content), and an abundance of eggs, milk, white meat, with red only occasionally. No fried, smoked meats, no rich, greasy, spiced made over dishes. Fresh fruits in season. In general, a mixed diet is best with the preference given to easily digestible meat, milk, eggs, and fat (butter, olive oil etc.)

—CHARLOTTE C. WEST.



Girl or Boy? We voted for boy, but Mrs. Clarence R. Weidle of McKean, Pa., says this is her grand-daughter and she ought to know. Myra Faith Fuchs is her name; she is two and a half; can sing her Mother Goose rhymes; eats milk, eggs, potatoes and vegetables; and delights in having her picture taken. It's no effort for Myra Faith to "look pleasant" —her face just goes that way.



Give a thought to Advertising

This week we are going to devote this column to a discussion on advertising and the farm woman. Some say women are not interested in advertising, while others say it is the most valuable part of the farm papers they read.

We all know that men depend on advertising to decide what they will buy, so let us ask you the question: "Does advertising help women, and are they interested in it?"

The other day, our Household Editor showed me a letter from one of our subscribers in which she said that advertising was spoiling her Household Page. She said she never read advertisements and wished we could run our paper without advertising in the Household Department.

I wonder what would happen if that woman would stop for a moment and glance around her own home. Undoubtedly, she'd be surprised at the large part advertising has played in her life, even if she does not read the advertisements herself.

Maybe you agree with this woman and do not like to read advertisements, in which case you will probably be interested in the familiar story of which I am reminded.

Mrs. Day, a certain lady living on a New York State farm, always said that advertisements bored her, yet, she began her morning by turning off the ringing of her BIG BEN and turned on a new gas jet supplied by their recently installed COLT LIGHTING SYSTEM. She prepared breakfast hurriedly over her oil stove equipped with the HIGH SPEED LORAIN BURNER and had both WHITE HOUSE COFFEE and POSTUM for breakfast, as one member of the family used POSTUM because "There's a Reason."

After putting her family washing in her new MAYTAG machine, and doing her baking with the help of CRISCO and RYZON, which necessitated refilling the stove with SOCONY, her morning's work was well started. Before dinner, her dishes had all been washed with the use of FELS-NAPHTA on a STANDARD size sink, and the floors scrubbed with RED SEAL LYE.

In the afternoon she made a short trip in her new CHEVROLET SEDAN equipped with GOODRICH CORDS, her neighbor admired her new car, but said they had just decided to buy an OVERLAND.

Her husband returned from a trip to town in his GENERAL MOTORS TRUCK in which he had made four trips that day; he said if it had not been for the CONCRETE ROAD, he could never have done it, as all other roads were impassable at this time of the year.

In locking up the henhouse at night, her task was made easy by the use of her EVER-READY FLASHLIGHT, which saved her from tripping over some boards which her small boy had left in the path.

Her husband remarked in the evening that their greatest comfort was their new MILWAUKEE WATER SYSTEM as they now had a complete bathroom equipment. Finally, she decided to go to bed and have a splendid sleep on her OSTERMOOR MATTRESS.

And this woman said that she did not believe in ADVERTISING. Can you beat that?

Advertising Manager

How to Grow Dahlias

Quilt Directions Wanted--Our Weekly Patterns

THE dahlia is one of the most beautiful of our fall flowers and very easy to grow. If you are a flower lover you can grow them from seeds and get a large number of tubers with flowers of many kinds and colors. For my part I thoroughly enjoy watching the buds develop on seedling dahlias, for I know that something new is very likely to show up when it opens. If we will buy a package each of the best double seed of the various types, we will have a better assortment than if we try to get all the sorts in one mixture. Considering that after we once get the bulbs we can keep them over and build up a splendid collection, the cost of seeds is a small matter. We can even sell tubers enough to pay the cost if we wish, for good dahlia tubers are in demand where they are known.

Dahlia seeds are large and the plants grow fast, so it is not necessary to plant them very early. The soil must be fairly warm when the plants are set out, so if we start them in boxes about now, we will have them in plenty of time.

Plant them thinly and if too thick transplant some to other boxes. This is a good way to handle them: plant rather thick in one box and when growing well, transplant to other boxes two-inches apart each way to give room for good development. This will give strong plants that will take hold at once. Keep in as good light as you can.

Set the plants in rows in the garden and cultivate with the horse if you wish, for they will do well enough that way. They are strong growers and should be planted regular corn-row distance apart. I plant eighteen inches apart in the row. When they bloom in the fall, select the finest colors, and label with a description while in bloom and then when you put away, keep the label with them. You may well give names to each chosen sort. Keep the more ordinary sorts as a mixture or discard such as you do not think worth growing.—BERTHA ALZADA.

QUILT DIRECTIONS WANTED

Can any of our readers tell how to make a quilt called the Rag Carpet? Miss E. M. of New York State writes that she wants to get the directions.

She says: "My block is six inches square when pieced, and is made of six pieces six inches long and one inch wide. It should be set together, so it would look like weaving, but I am unable to do it without directions or picture."

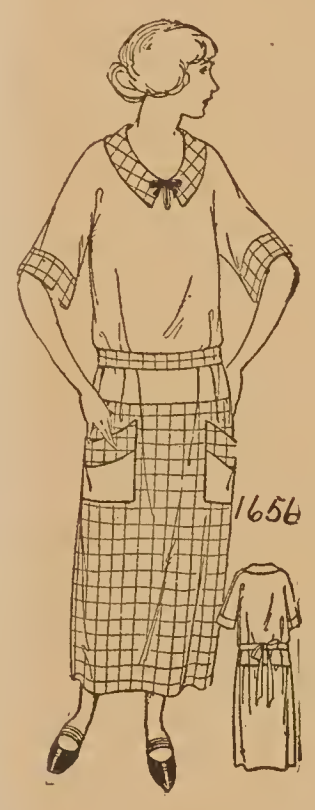
We would be glad to hear from anyone who can help Miss E. M.

FIVE STARS ON THE STAGE OF FASHION

THE matron will feel suitably attired for the part she has to play if she wears this becoming dress for a full figure, with panel and trimming bands which slenderize the appearance of the stout woman. **No. 1726** cuts in sizes 42, 44, 46, 48, 50 and 52-inches bust measure, with either short or long sleeves. Size 46 takes 3½ yards of 36-inch material with 1⅝ yards of 30-inch contrasting. **Price, 12c.**

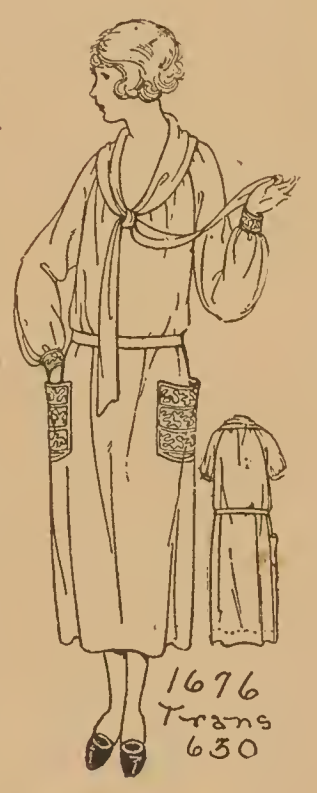
FIRST is the faithful blouse, so popular in the winter fashion parade and back again at the head of the spring line of march. Every spring blouse has its perky side bow, of the material itself or in satin ribbon. **No. 1729** is no exception and is just the thing to wear with a cloth suit. It comes in sizes 16 years, 36, 40 and 44 bust, and requires over 2 yards of 36-inch material for size 36. Add 2½ yards of binding. **Price** of pattern, **12c.**

THE part of a demure schoolgirl in the fashion parade is played by this little bloomer dress with its overblouse in smock style, trimmed with Peter-Pan collar and buttons. In gingham chambray or cotton crêpe it is ideal for school wear. The bloomers are separate, so if the frock is made of more dressy material, it can be worn with fluffy petticoats. **No. 1678** comes in sizes 2, 3, 6, 8 and 10 years, and like all our patterns has liberal allowance for seams and for growth. **Price, 12c.**



THE young woman-about-the-house looks well and feels presentable in this attractive two-material gown. If the woman who wears it is not especially good at home dressmaking, she need not fear to try this simple pattern—it offers no stumbling block. **No. 1656** cuts in sizes 34, 36, 38, 40, 42 and 44-inches and size 36 takes 2 yards of 36-inch material, with 1⅝ yards contrasting. **Price, 12c.**

AND for the high school or college girl, this pert little frock is just the thing to wear. The new handkerchief effect is shown at the neck, the touch of gay peasant embroidery on the pockets. Yet **No. 1676** is simple and youthful and not hard to make at all. It cuts in sizes 14, 16, 18, and 20; only 3½ yards of 40-inch material required for the medium size. **Price** of pattern, **12c.** Transfer 630, **12c.**



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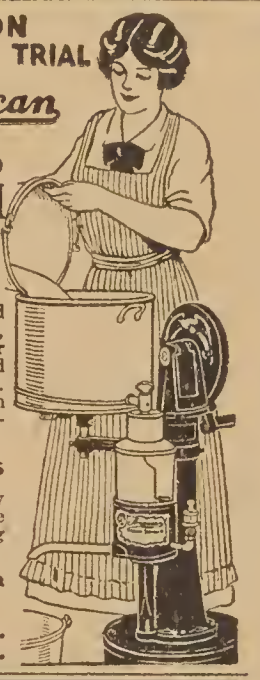

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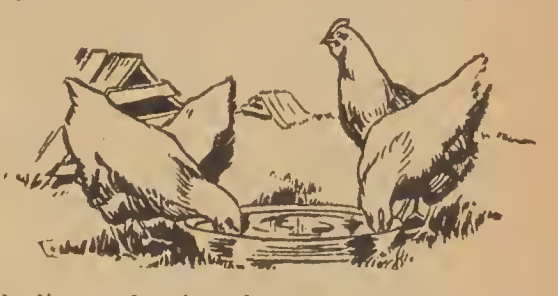

all lice and mites leave them. The tablets also act as a tonic conditioner. The health of the fowls quickly improves, they grow faster and the egg yield frequently is doubled. Little chicks that drink freely of the water never will be bothered by mites or lice.

The method is especially recommended for raisers of purebred stock, as there is no risk of soiling the plumage. The tablets are warranted to impart no flavor or odor to the eggs and meat. This remarkable conditioner, egg tonic and lice remedy costs only a trifle and is sold under an absolute guarantee. The tablets are scientifically prepared, perfectly safe, and dissolve readily in water.

Any reader of this paper may try them without risk. The laboratories produeing Paratabs are so confident of good results that to introduco them to every poultry raiser they offer two big $1 packages for only $1. Send no money, just your name and address—a card will do — to the Paratab Laboratories, Dept. 889, 1100 Coca Cola Bldg., Kansas City, Mo., and the two $1 packages, enough for 100 gallons of water, will be mailed. Pay the postman $1 and postage on delivery, and if you are not delighted with results in 10 days—if your chickens are not healthier, laying more eggs and entirely free from lice and mites—your money will be promptly refunded. Don't hesitate to accept this trial offer as you are fully protected by this guarantee.

Reviewing the Latest Eastern Markets and Prices

WOOL PRICES FIRM

THERE is a broadening tendency to the wool market, both here and abroad, and the tendency of prices in consequence is to harden. There is a more pronounced interest in fine wools, which have been in tremendous demand and in relatively small supply. It is understood that of the imports of fine wools from abroad this season the greater part of such wools have already passed into the hands of the manufacturers.

In the West, short combing fine, and fine medium clips are now definitely on a clean basis, landed Boston, of $1.40 and not infrequently slightly more is estimated to have been paid. The Idaho Falls wools, of about 50,000 fleeces, were bought last week at 43½c for wool shrinking possibly 57 per cent and running closely to ⅜-blood and ¼-blood grades.

In the Boston market there has been a wide range of wools sold so far as qualities are concerned, and more interest is being shown in scoured wools of nearly all grades. Prices are very firm, and the tendency is to harden unless on low grades scoureds and wool oils.

Following are the quotations on the New York market April 13: Domestic, cleaned, unwashed Ohio and Pennsylvania, fine delaine, 56 @ 58c per lb.; XX, 52 @ 54c; ½-blood, 55 @ 56c; ⅜-blood, 52 @ 53c; ¼-blood, 50 @ 51c.

POTATO MARKET STRONG

Most of the buyers in New York City are now showing a decided preference for Idaho potatoes. The market firmed up last week from $1.90 cwt. sacked, delivered, to $2.20, and some of the largest shippers were not quoting until they have caught up on the orders they had booked.

Some cars of Maines came into Harlem yards frozen, and this stock had a tendency to keep the prices unsettled. Other yards report light arrivals and a good trade.

Total carlot shipments of old-crop potatoes in the country this season up to April 7 were 150,040, compared with 157,433 last season to same date, and a total of 185,425 cars for all of last season. Carlot shipments of new-crop potatoes this season, however, were 26,441, compared with 19,858 in the same period last year. This means the total shipments of both late and early crop this season up to April 7 were over 7,000 cars in excess of last year's shipments in the same period.

STORAGE APPLES SHOW SCALD

The bulk of the offerings of barreled apples at New York last week came out of storage with a bad condition of scald. Fancy Greenings of medium size free from scald brought as high as $7.50. Ordinary stock went as low as $4.50 per bbl. There were very few fancy well-colored Baldwins available.

Wholesale prices, barreled stock, A grade, 2½-inch, at New York, April 12, were:

	Best	Fancy	Ordinary
Baldwins	$5 @5.25		$4 @4.25
Greenings	6.25@7.50	6.75@7.25	4.50@5
Ben Davis	3 @3.75		

STORING HELPS EGG MARKET

After the very dull period in the week following Easter, the egg market picked up again last week. Buying for cold storage became more active, and the receipts in the large markets fell off considerably. The decline in shipments to large markets is explained chiefly by the fact that in the middle Western sections attention is being given largely to storage packing and the proportionate quantity of eggs that is going into storage at country points is greater so far than at large markets.

The stock of eggs in cold storage on April 12 this year in the four large markets was only 441,979 cases, as compared with 988,136 cases at this time last year, and a still larger amount at this time in 1921. In New York City the cold storage stocks on hand April 12 were 243,054, as compared with 390,879 at the same time last year. Receipts of eggs at New York were 104,278 cases last week, compared with 186,116 cases in the corresponding week last year, and the receipts at New York since January 1 were 2,124,985 cases, compared with 2,170,717 cases during the same period in 1922.

BUTTER OUTLOOK GOOD

Some dealers think there will still be a shortage before the spring increase in production, that will cause stiffer prices. The demand is very satisfactory. The wholesale trade is generally cleaning up its floor daily. The big chain stores are selling retail at a very small margin over wholesale prices, which tends to encourage consumption. There were altogether in public warehouses at New York only 1,043,546 lbs. of butter on April 12, compared with 1,576,886 lbs. the same date last year. Receipts are running around 30,400 lbs. per week.

BROILERS TOO LIGHT

Receipts of live spring broilers by express last week were liberal, but toward end of week they sold quite actively and at fairly good prices. Many shippers have been sending too light-weight broilers to market to get good prices, some weighing as little as one-half pound. To get best results, broilers should be 1¼ lbs. or more, and it is a mistake to send any less than ½ lb. They should be carefully sorted as to size and weight so that each coop is as uniform as possible.

LIVE-CALF RECEIPTS HEAVY

The receipts of live calves at New York last week were heavy and the demand moderate, which resulted in a decline of prices toward the end of the week. Strictly choice veal calves sold at $11 per cwt. in the middle of last week, but declined on Thursday with a top price of $10 per cwt. On Wednesday, other grades ranged from $10.50 down to $6 for very common and small calves brought $3.50 to $4.50 per cwt. The day following, medium grades sold considerably lower and small calves dropped down to $3 to $4. The demand for the best quality of live calves, however, was about sufficient to clean up supplies.

Choice clipped live lambs sold on April 12 at $12.25 per cwt., which was an improvement over the market earlier in the week. The best unshorn lambs did not bring over $14 to $14.50.

Live hogs declined slightly early last week and then continued steady.

CHOICE VEALS SCARCE

The receipts of country-dressed veal calves at New York last week continued to be heavy of the medium grade, but choice veals were comparatively scarce. Toward the end of last week the tone of the market for average quality dressed calves was weak and the prices irregular. Really choice veals, however, were sold at 15 to 16c per lb., with some very fancy occasionally bringing even higher prices in a small way. Prime veals sold largely at 12 to 13c, and poor to fair grade 9 to 11c, with very common and small at still lower prices.

Country-dressed lambs were in light receipt early last week, but somewhat heavier toward the end of the week. The finest hothouse lambs of desirable weight sold as high as $11 per carcass. The lower grades toward the end of the week sold at a wide range of from $3 to $8. There were practically no receipts of country-dressed pork from nearby sections, and prices of 15 to 17c for pigs, light to medium weight, per lb., were nominal.

HAY MARKET STEADY

The market for hay and straw at New York was steady last week, and there was very little change in prices. Shipments to 33d Street on the New York Central were light, and shipments reported on the way were not heavy. There was very little accumulation of stock in the market. Rye straw was scarce and prices for it firm. Oat straw sold slowly. Hay shippers are urged to comply with the requirements of the New York State laws in tagging each bale of hay or straw with a cardboard tag with large legible figures, giving the exact weight of the bale.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on April 12:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	36½@37	......	......
Other hennery whites, extras	36	......	......
Extra firsts	32 @33	29@30	28½
Firsts	30 @31	......	27
Gathered, whites, first to extra firsts	30 @33	......	......
Lower grades	28 @29	......	......
Hennery browns, extras	33 @35	......	......
Gathered browns and mixed colors, extras	29 @32	28@29	......
Pullets No. 1	25 @27	......	......
Butter (cents per pound)			
Creamery (salted) high score	49½@50	53@54	......
Extra (92 score)	49	51@52	49
State dairy (salted), finest	48½	49@50	......
Good to prime	47½@48	42@48	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$25@26	$20@21	$21@22
Timothy No. 3	21@23	......	18@19
Timothy Sample	14@17	......	......
Fancy light clover mixed	25@26	......	21@22
Alfalfa, second cutting	30@31	......	......
Oat straw No. 1	16	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	26@27	26@27	29@30
Fowls, leghorns and poor	......	24@25	......
Chickens, leghorns	21@22	21@23	27@28
Roosters	15@16	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	9 @10	8 @11½	......
Bulls, common to good	4 @ 4¾	5 @ 5¾	......
Lambs, common to good	9 @12	10 @11½	......
Sheep, common to good ewes	3½@ 5½	5 @ 7½	......
Hogs, Yorkers	9 @ 9¼	8¾	......

FEED MARKET STRONGER

There was much more activity in feeds at Buffalo last week and the market was firm with a tendency toward higher prices. Nearly all feeds advanced over the previous week except gluten feed and cottonseed meal. Quotations per ton in 100-lb. sacks, carlots, Buffalo rate basis, April 11, were:

Gluten feed, $40.05; cottonseed meal, 36 per cent, $44.75; cottonseed meal, 43 per cent, $51; oil meal, 31 per cent, $40.50; standards spring bran, $34.25; hard winter bran, $34.75; standard spring middlings, $33.75; choice flour middlings, $36; white hominy, $33.55. No. 2 yellow corn per bushel, 92¾; No. 2 white oats, 54½c; barley feed, 72 @ 76c; No. 2 rye, 90c.

WINTER WHEAT OUTLOOK

The forecast of the smallest wheat crop in five years, issued by the U. S. Dep. of Agr. last week, naturally tended to strengthen the market for wheat and all grains. "Owing to extensive drought or scanty rainfalls last fall and winter in many sections," the report said, "much wheat failed to germinate." The severe winter has injured much of that which did grow. In some Western States the condition ranges from 50 per cent to complete failure. The estimate of April 1, is 76.2 per cent of normal for the coming season or about 572,317,000 bushels.

The speculative future market was very "bullish" as a result of this information and even cash spot grains advanced considerably. Prices on cash grains, April 12, follow:

New York—No. 2 red wheat, $1.52¼; No. 2 hard winter, $1.37¾; corn, 2 yellow, $1.02; 2 mixed, $1.01½; 2 white, $1.02; oats 2 white, 57½c; white clipped, 56½ @ 59c; fancy white, clipped, 59½ @ 61c; rye, 95½c; buckwheat, $1.86 @ 2.10. Chicago—corn, 2 white, 82½c; 2 yellow, 82½ @ 83½c; oats, 2 white, 47½ @ 48c; rye, 86½ @ 87c; barley, 62½ @ 71c.

Pure Bred vs. Good Bulls

(Continued from page 363)

Laura gave an average of 3,607 lbs. of milk a year during five lactations.

Her half-Holstein daughter, Lotta, gave an average of 7,340 lbs. of milk for five lactations.

Her three-quarter-Holstein grand-daughter gave 9,598 lbs. average for two lactations.

Her 15/16-Holstein great-grand-daughter gave only 4,850 lbs. average for two lactations. All the daughters of the sire of this last cow were about equally bad, although the sire was pure bred, and probably would have brought more than most dairymen would be willing to pay for a sire to head the herd.

I am not giving these instances for the purpose of proving that grades are better than pure breds as sires. I do not think they are. I do, however, think that the cream of grade bulls are preferable to the skim milk of pure breds, and the skim milk ones are all too often the one the average dairyman buys.

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BABY CHICKS

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AMERICAN AGRICULTURIST

Founded 1842

VOLUME 111 APRIL 28, 1923 NUMBER 17

" 'Bout Time We Had 'Lectric Lights"

Immigration Not The Remedy—By G. F. Warren

Cooperation and Orderly Marketing

President of New York Farm Bureaus Talks to 500,000 People by Radio April 18

By ENOS LEE

THE comparative recent growth of cooperative organizations by producers on a commodity basis here in the East may raise a question in the minds of people, particularly consumers, as to just what the advantages of this method of marketing may be. While farmers have been discussing cooperation for years, the great war and its subsequent activities, both during the war period and in the readjustment, together with the growth of the Farm Bureau movement, have stimulated the present activity of cooperative marketing. The farmer is for the most part a conservative man, and the application of new and untried methods in his line of business therefore comes more slowly. He must not lose his identity as an individual, for around him and his family is built the rural home, which is an institution which must ever be preserved in our national life. A peasant population producing the food of the nation might do it at a less cost, but the cost in citizenship would be something never regained in any other way.

Necessity is the mother of cooperation, and for that reason our Western friends were more active for a time in the field of cooperation. Their distance from market, which involved transportation difficulties, created the necessity. The producing units on the average are smaller in the East, and this with other conditions make the work of organizing cooperatives here more difficult. We ordinarily look for progressive ideas from the West, and these, tempered with the conservative Eastern, though, have always worked out a solution, for the time being at least, of most of our problems. This has held true with regard to cooperative marketing as in other lines of business, or thought, or government.

New York State has a cooperative organization for the selling of milk and milk products, fruit, potatoes, maple sap products, wool, canning crops, hay and poultry products. Other Eastern States have similar organizations to a greater or less degree. Aaron Sapiro, who is very largely responsible for the success of the California and Western Coast associations, is in the East at the present time assisting in the particular work. Very recently he has met with the people interested in the potato industry of Maine and in New York State. From present indications, the next few years will see practically every commodity which is grown to any extent being marketed through organizations set up along cooperative lines.

The Farm Bureau, as an organization, is not directly connected with these associations, but has very largely made it possible for them to come into being. It has the personnel and equipment whereby surveys can be made and information gathered on which a true basis of facts can be secured. We believe that each cooperative should, generally speaking, stand on its own feet, and it is more charitable to help them help themselves rather than for them to be carried along on the success or failures of all the others. The Farm Bureau should not and does not engage in any commercial activity. However, since it is fundamentally an educational institution, it can and should lend its efforts toward the orderly marketing and transportation of farm products as well as to the production of the same.

This movement for orderly marketing should be, and I believe is, being welcomed by bankers, merchants, transportation agencies, and the ultimate consumer. It makes for the elimination of waste, simplifies transportation, standardizes grades, and insures a reasonable supply at all seasons. Recent national legislation, together with bankers' associations, have made it possible to properly finance the movement of crops. Merchants' associations and chambers of commerce are lending their services, together with the Farm Bureau, to assist any reasonable and sincere effort to better existing conditions. Transportation facilities, railroads, waterways, and motor transport look with favor on any movement which can aid them in carrying products from shipping point to destination, and I believe the consumer, which means all of us, will see the result in the quality and quantity of the products and service we buy, and we can and will receive value for value given.

Radio Fishin'

Was The Editor "Frying Steak," or Making A Speech?

By A A. READERS

DEAR EDITOR ED: I had a experiance last night that I wanted to tell to your large fambly of readers. I ain't no writer, so I give you leave to change the artikel any way you see fit. With your permission I will sale rite a head.

Wall, in the first place I seen in our lokal weakly paper a artikel telling that Ed Eastman, the editor of the good old American Agriculturist, was to make a radio talk last night. Now I have known Ed a long time. He ust to stop at our house, generally on Fridays, and eat codfish and potatoes with us, and I thought it ud be fine if I could heer him make this talk. So last Wednesday night, about seven o'clock, I dropped into a friend's house where he had a home-made radio and showed him the artikel in the paper, and asked him to hook her up so I cud heer Ed talk. Doc, my radio friend, looked kinder funny and said: "Say, do you know anythin about this radio buziness?" I said "No."

Then he went on to explane how ther was somethin like 400 broadcastin stasions in this country, and every night, almost, they was all shootin out this radio stuff in the air, and that he ud be lucky if he cud tune in on Eds talk without gettin all tangled up with the other 399. He said the air was jest full like the ocean with about 400 diferunt kinds of fish swimmin round in it, and what I had ast him to do was to catch one pertikler lobster without hookin any of the other 399 fish. After he told me that, it looked kinder complekated to me, but he said heed try it. I saw him do somethin under the table where the radio box was, and 3 little lectrik lights lit up in the contrapsion, and right away we heard a scrapin and whistlin comin out of the big horn that stuck up above the box on the table. Then he started "fishin," as he called it, which he done by turnin two little nobs in the front of the box where the lectrik lights were. As matter of fact, sounded more like some one was fryin fish than fishin, to me—might have been steak fryin in the kitchen of the broadcastin stasion.

Pretty soon we heard a banjo playin, and by gum! that feller cud play to. My foot got to twitchin, and jest as I was goin to stand up sos to git more knee action some feller somewheres else begun talking about his Uncle Wrigleys whiskers. Doc, my radio friend, says: "It is haf past seven and this is a bedtime story from Springfield." Wall, after listenin to him a while I begun to get kinder sleeply myself and wondered when Eds talk would get caught in the machine. The newspaper artikel said Ed was to talk in W E A F at 7.30 p. m. on 400 meters. I did not know what that was, and anyway it was now past 7.30 p. m. and Doc said he was afraid he cud not tune in rite. Wall, all we had heard so far was tunes and that pesky story-teller, who kept buttin in, and I got kinder discouraged myself.

Doc says: "How'll we know now if I do get Ed?" And I said: "Don't worry; I know Eds voice rite well. When he ust to come to our house he always ud sit down at the pianer and sing 'Home, Sweet Home,' and 'Swaney River,' and such good old tunes, and I ud know his voice anywheres."

Wall, Doc kep on with his fishin and then all of a sudden we heard a big, deep voice talkin about the Rural School Bill. I hollered "Whup! Let her lay. Thats Ed," and then I hollered in to the horn "Hello, Ed," but the statik was not workin rite or else Ed was afraid of losin his place in the speach he was readin, because he did not seem to hear me and kep rite on talkin. It did not sound like Eds voice after all, but I felt it must be his'n because he always likes to talk about that "Committee of 21" of his'n. It seemed that ther had been some kind of a joint meetin in Albany that afternoon on the Rural School Bill and Ed was just primed full of the subjeck.

Then he got to talkin about the San Jose Scale, which is a nother favorite subjeck of his'n. Wall, it was all very interestin, and he wound up by askin his great fambly of readers to watch out for the April 14 issue of the good old American Agriculturist because he was puttin in some questions he wanted us all to anser. I told him "I would watch out for it," and then he stoped talkin and a nother feller butted in and said the talk he had jest heard was made by E. R. Eastman, editor of the American Agriculturist, so then I knew for shure that Doc had got the rite lobster, even if it did not sound like his voice.

* * *

A number of your Interlaken friends had their radios tuned for W E A F last night and heard your address, among them "yours truly."—T. P. H., Seneca County, N. Y.

* * *

The opening agricultural radio talk of the American Agriculturist reminded the writer of some San Jose scale-infested currant and gooseberry bushes and a couple of fruit trees in the back yard which will now have attention.—H. G. H., Swampscott, Mass.

* * *

DEAR MR. EASTMAN—After "listening in" to your talk on the radio the other evening, I feel that I must write and tell you how much I enjoyed it. I especially wish to commend you on the simple, straightforward manner in which your talk was delivered. It certainly imparted useful information—a thing which cannot be said of most radio talks.—ERNEST ZADIG, New York.

American Agriculturist

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Volume 111 For the Week Ending April 28, 1923 Number 17

Immigration Not The Remedy

For Overcoming The Shortage of Labor That Farmers Are Now Facing

By G. F. WARREN

MUCH discussion concerning the effects of immigration on agriculture is going the rounds. Often it is not based on facts. Before discussing the effects of the present law, it is desirable to find out what the facts are.

The facts are given in the report of the Commissioner General of Immigration and in various press releases. For many countries, the number of immigrants who desired to come to the United States in 1922 was not so large as the law would allow. Many more Austrians, Danes, Swedes, Norwegians, Hollanders, Germans, Englishmen, etc., would have been admitted had they desired to come. The law checked the admission of Greeks, Hungarians, Italians, Rumanians, Armenians, and Turks. The countries from which more people would have been admitted had they desired to come are as follows, with the percentage of the possible number of immigrants who came to the United States in the year ending June 30, 1922:

	Per cent
Austria	64
Denmark	58
France	76
Germany	28
Netherlands	67
Norway	49
Russia	84
Sweden	44
United Kingdom	55

Some countries from which immigration was checked by law:

Bulgaria, Czecho-Slovakia, Greece, Hungary, Italy, Belgium, Poland, Rumania, Jugo-Slavia, Armenia, Palestine, Syria, Turkey, Africa.

Data up to February 7, 1923, which is a little over seven months of the present year, indicate that the law will admit many more Danes, Norwegians, and Germans than desire to come. Judging by the present indication, the Swedish, English, French, and Holland quotas may not quite provide for all who desire to come. The immigration from southern Europe will be checked as it was last year.

Opinions About Immigration

Facts and opinions about immigration should be clearly separated. The above are some of the facts. The writer is of the opinion that we ought some time ago to have adopted constructive policies on the immigration question rather than to allow matters to drift. Those who have studied the question believe that the immigrants should be inspected in foreign countries and not allowed start for this country until they have passed such physical and mental tests as would indicate their acceptability in this country. It is an injustice to the immigrant to have to cross the ocean to find whether he can be admitted. Selection would be more discriminating if done before starting. The enormous expense that the State of New York is carrying in maintaining foreigners in our State institutions is an indication of the need of much more careful selecton.

In so far as restriction of immigration from southern and eastern Europe makes the opportunities for immigrants in the United States better, it encourages immigration from northern Europe. It is certain that more Canadians, English, French, Germans, Dutch, and Scandinavians are coming than would come if immigration were not restricted. In short, the restriction law is a restriction to southern and eastern Europe and a stimulus to northern and western Europe. The quality of the immigrants now coming is much above the average that came before the restriction law was passed.

A Constructive Immigration Policy

A CONSTRUCTIVE immigration policy would appear to include: Examination, both physical and mental, in Europe, of all prospective emigrants for permission to embark for the United States.

Rigorous enforcement of health tests.

Rigorous intelligence tests to encourage immigration of persons of good intelligence and prevent immigration of persons of inferior intelligence. The army test showed that a large number of such persons have in recent years been admitted. We have enough such in this country now to raise all of the imbeciles and near imbeciles that we need. The increase in our asylums is appalling.

Continuance of literacy tests.

The number of persons who desire to come from northwestern Europe does not seem to be larger than can be quickly assimilated. The number who desire to come from southern and eastern Europe seems to be much greater than can be readily assimilated. These should be restricted to such numbers as can be readily assimilated so that all who come will be absorbed rather than remain as insoluble lumps in our so-called "melting pot." A percentage regulation based on the 1900 census would seem the best means of accomplishing the desired result.

Because of the high wages in cities, some farmers believe if we allowed indiscriminate immigration that it would break the labor market. Since farmers as a class depend more on the labor of themselves and members of their families than they do on hired labor, and depend more on their own labor than they do on the returns from capital, it is to their interests that wages be high. If over a series of years wages remain high, the pay that farmers receive for their own labor will be high. It is very trying to see one's sons and hired men go to the cities and receive very high wages at a time when farm products are low. It is not in the interest of farmers to have country and city wages out of adjustment, but it is in their interest to have wages high. Adjustment between city and country can be brought about by the movement from farms to cities as readily as by bringing in foreigners.

Effect of Restriction on Agriculture

Other farmers believe that, if we allow free immigration, men will be available to work on farms even though farm wages are out of adjustment with city wages. If it were possible to hire men at wages that are out of adjustment with the industries, it would be interesting to know just how the prices of farm products would be brought into adjustment with prices of manufactured goods. One who complains that there is an overproduction of farm products is certainly not very logical if he also clamors for more labor.

Comparatively little of the work on farms in the United States is done by persons from southern Europe. Most of the farm hands in this country are native Americans. Some come from northern Europe. Since the present law tends to stimulate immigration from northern Europe, the chance of your having a Swede, Dane, Englishman, or German to work on your farm are better than they would be if immigration were unrestricted. But, in any event, these chances are very slight. More highly skilled native American farm boys are raised on farms than are needed in agriculture. The best source of additional farm labor is these young men. If the relative supplies of manufactured goods and farm products are so out of adjustment that farm prices are so low that it is impossible to keep these men on farms, it would seem logical to let enough of them go to bring about this till we see what effect Possibly too many are now going to cities. We cannot be sure about this till we see what effect the present movement has on farm production.

The farmer has another interest in the immigration question. Our own population is multiplying very rapidly. Farm families are so large, and the increase in efficiency of farmers is so great, that there is room on farms for only about one-half of the children who are born there. Where are these children to go? Evidently they must go to American cities. Accurate data are not available, but probably the normal movement from farms to cities is about one-half million per year. Some city opportunities are needed to make places for this surplus farm popoulation.

Effect of Immigration on Public Welfare

This country is no longer thinly populated. There is no longer a supply of readily available good land. The additional production of the future must come from slower and more expensive methods of expansion. Is it not well to leave a few of our resources for gradual development to provide a place for our own surplus population?

Very much more important than the immediate economic effects of immigration are the permanent effects on national welfare. We are all working not only for ourselves, but for our children, grandchildren, and great-grandchildren. We like to accumulate some property which can be left to them, and like to earn enough so that they may have educational opportunities. Is it not just as

(*Continued on page* 380)

Editorial Page of the American Agriculturist

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G. F. Warren on Immigration

FARMERS do not need to be reminded that the labor situation on farms, none too good since the beginning of the World War, is now worse than ever. According to the United States Agricultural Report, the farm labor supply on April 1 in the North Atlantic States was 23 per cent below the demand. The danger is, in a situation of this kind, that we will be led to advocate taking up remedies that do more harm than good. One of these so-called remedies for the farm-labor supply is the suggestion to let down immigration bars.

Because we are sure such a policy is detrimental to the long-time interest of farmers, we are especially glad to publish as a feature article this time Professor G. F. Warren's article on the immigration question. As most of our people know, Dr. Warren is one of the soundest agricultural economists in the United States. He is the author of the famous Warren Formula.

May we emphasize Dr. Warren's remarks by repeating one or two of them here. He says: "Since farmers as a class depend more on the labor of themselves and members of their families than they do on hired labor, and depend more on their own labor than they do on the returns from capital, it is to their interest that wages be high. If over a series of years wages remain high, the pay that farmers receive for their own labor will be high. It is very trying to see one's sons and hired men go to the cities and receive very high wages at a time when farm products are low. It is not in the interest of farmers to have country and city wages out of adjustment, but it is in their interest to have wages high. . . .

"One who complains that there is an overproduction of farm products is certainly not very logical if he also clamors for more labor. Comparatively little of the work on farms in the United States is done by persons from southern Europe. More of the farm hands in this country are native Americans. Some come from northern Europe. Since the present law tends to stimulate immigration from northern Europe, the chances of your having a Swede, Dane, Englishman, or German to work on your farm are better than they would be if immigration were unrestricted; but, in any event, these chances are very slight."

It seems to us that these statements of Dr. Warren are just plain, logical common sense. The farm-help shortage just at the present time is irritating, to be sure, but, in the first place, immigration will not give us any more hands, as Dr. Warren points out, and, in the second place, more help would enable us to raise more products than the market needs, and thereby continue to keep the prices of agricultural products out of adjustment with other prices.

Money For Condemned Cattle

GOVERNOR SMITH has signed bills providing $5,000,000 to pay farmers for tubercular cattle destroyed. There are two of these laws. One provides payment for cattle slaughtered during the fiscal year 1922 to 1923; the other provides for cattle slaughtered during the balance of 1923 and the spring of 1924. The money will now be available.

American Agriculturist has called attention to the need of this legislation several times, both in its columns and through its speakers at farm meetings, and with the legislators themselves, and we are naturally very much pleased that we have had a part in working for this much-needed legislation for dairymen. The situation has certainly been absurd whereby farmers who badly needed the money had to wait for so long after their cattle were condemned before the State was in a position to meet the obligation. If the State money for payment of tubercular cattle had been more quickly available in the past, there would be less of such cattle to-day. Passing this legislation is one more step in advancing the campaign to conquer a leading dairy problem.

Let Us Get Together

ON April 17 representatives of many of the farm organizations had an informal conference at New York with the Executive Committee of the New York State Chamber of Commerce for the general purpose of bringing about a better understanding between city and country, and particularly to discuss the terminal and market facilities of New York with the view of suggesting remedies that would improve them.

The thought was emphasized several times that city people have little idea or appreciation of the farmers' problems; and, vice versa, there was more or less understanding on the farmer's part of city folks and conditions. This misunderstanding is not only bad from a social standpoint, for, whether we live in the city or country, all are human beings with many of the same problems, and the majority are American citizens. But it is particularly bad from an economic standpoint, for a better appreciation of one another's problems will do much to put all back of a program to give farmers more for their products and help consumers get more reasonable prices.

Arrangements were discussed for regular conferences several times a year between representatives of the Chamber of Commerce and other New York business men, and leading farmers and representatives of farm organizations. This preliminary conference was well worth while from this standpoint alone, for regular meetings between leaders in the country and city will lay the foundation of knowledge of each other's problems, and may lead to action that will help to solve those problems.

Terminal market facilities received a large amount of discussion at the conference. One speaker said that bananas, raised thousands of miles away in Central America, were transported to New York, sold on the docks to retailers at auction sales, and then sold from the pushcarts in the city streets for fifteen bananas for twenty-five cents, or for less than two cents apiece. On the other hand, apples grown in our own country, some of them within two hundred miles of New York City, sold from the fruit stands for from five cents to fifteen cents apiece. The difference is largely caused by the way the fruit was handled in the markets after it reaches the New York City terminals.

Several of the speakers thought that the situation might be much improved by selling carefully graded fruit and products at auction sales at the terminal markets, but all agreed that the first step to this, or to any kind of improved market conditions, was better grading on the farmer's part of everything he offers for sale. The market success of the western fruit growers has been largely due to the fact that the dealers in New York know that the apple on the bottom or in the middle of the barrel was of the same quality and size as the one on top, and the same principle of careful grading applies to every farm commodity.

The great problem of marketing all farm crops starts after the produce reaches the terminals. There is not much that can be done in the way of reducing transportation costs up to the time the produce reaches the city. The problem is, therefore, a city problem, which can best be solved by closer cooperation and work between the city business men on one side and the farmers and farm organizations on the other.

Potato Growers Organize

AS we reported last week, the Empire State Potato Growers' Association met with Aaron Sapiro to consider plans for perfecting their organization and more orderly and profitably put their potatoes on the market. Mr. Sapiro has just come from Maine, where an association has been organized to bring a large part of the Maine producers together. This organization will grade and store the crop through the locals, and will regulate its deliveries to the buyer through a central sales and merchandising office. The Maine growers' operations will be cooperatively financed on a broader scale, and it is hoped that all will profit by the cooperative plan for more orderly marketing.

Both of these movements, toward better marketing in New York and Maine, are in the right direction. There is much opportunity for marketing potatoes to good advantage from the growers' standpoint, but the movement will take a lot of time, ability, and hard work, both on the part of capable leaders and of every member. There will be stumblingblocks and disappointment. We believe a word of caution is wise against the danger that overenthusiasm may lead both producers and consumers to expect too much from their organizations, particularly during the first two or three years, while they are getting started.

Look Out For Foreign Alfalfa Seed

ACCORDING to the United States Department of Agriculture, 3,780,300 pounds of seed alfalfa were imported in the United States from July 1, 1921 to March 31, 1922. For the same length period ending March 31, 1923, 8,094,700 pounds of seed alfalfa were imported, or more than twice as much. As much of this imported seed alfalfa is southern grown, and therefore not good for northern conditions, it is unfortunate that such importations are increasing. Farmers will need to take extra care to see that foreign alfalfa is not included in their seed purchases.

The Decline of Agriculture and a Remedy

President of the N. M. P. A. Speaks to American Agriculturist Radio Audience

By JOHN D. MILLER

THAT agriculture is the basic industry is conceded by all. Destroy our cities and the farms will build them again. Destroy our farms and ships will rot at the wharfs; spindles will cease to hum; grass will grow in the streets of the cities and our proud American civilization will perish.

The process of readjustment since the war, including as it has the deflation of currency and of credits, has imposed upon agriculture a burden greater than upon any other industry.

This process of readjustment will, however, in due time, be complete. The burdens flowing directly from it will in due time be equalized, but it still remains that other grave problems must be solved by the American farmers. Before the war there was a gradual, steady decline in agriculture in that it did not increase as did the population of the cities. This resulted in the supply of food becoming less and less as compared with the demand. The causes of this prewar decline still exists and will continue to exist after the period of readjustment of war conditions has ended. All the people, both in city and country, are therefore directly interested in knowing the causes of this decline and what, if any, remedy may be applied to correct it.

This decline cannot be attributed to lack of efficiency in the farmers as producers. They have been quick to adopt every improved method that decreases cost of production, and it is not extravagant to state that the American farmer is as efficient as any farmer in the world. We must, therefore, look elsewhere for the cause of this decline.

Those engaged in other industries consider rightly that it is as necessary to efficiently market as to produce their respective commodities. Owners of coal mines have built railroads to market their coal. Vast aggregations of manufacturers have sales agencies in the principal cities of the civilized world. The greatest industrial movement of the last half century has been the centralization of the control and operation of industries. These organizations not only collectively produce but collectively sell, and it is from them that farmers must buy their supplies. Meanwhile there has also grown up other great organizations engaged in the processing and distributing of farm products. Growing with the growth of the cities, they have become powerful, and, with their far-flung financial, commercial, political, and social connections, stand like a stone wall between producers and consumers. Farmers having no other means of marketing have heretofore been compelled to sell their products to these organizations. As a result of these movements, farmers are now the one great group that sell their products at wholesale, buy their necessities at retail, and in both cases at prices determined by others. No other industry thus handicapped could long survive. In selling their products, farmers have found that the law of supply and demand has been nullified in that prices to them are determined by the supply and the demand at the point of production, where the supply always largely exceeds the demand, and one of the great objectives of the farmers in acting together through associations to market their products is to control such products until they reach the points of consumption where prices are determined by nation-wide and even world-wide conditions.

Another result of old methods is the growing disparity between the prices received by farmers and the prices paid by city consumers. That farmers receive less than six and one-half cents a quart for milk and city consumers pay fifteen cents a quart for it is a grave indictment of present conditions.

From all this it follows that farmers and city consumers are alike interested in such improvement in marketing methods as will permit the farmer to receive all that the consumer pays, less only the actual cost of processing and distribution.

Farmers are now awake to the necessity of this and are seeking to improve conditions by acting together in marketing their products. The economics of agriculture are such that farmers cannot produce collectively, but they should from that point on, both in their own interest and in the interest of city consumers, jointly market their products. Singly, they cannot create or maintain efficient marketing agencies. This requires large investments and the employment of men skilled in merchandising. As applied to the dairy industry, it may be stated that the objects of these marketing associations are, first, to assure the farmer of a market for his milk every day in the year, and, second, that the prices that they receive shall be the prices as from time to time are determined at the points of consumption instead of at the points of production. Only by doing this can farmers discharge the duties they owe to themselves and to all the people.

These organizations have not been formed nor are they operated in a spirit of hostility to anyone. They are simply the means adopted, and the only means that can be adopted, by which farmers may follow the example of those engaged in other industries in mobilizing their financial strength to create adequate marketing agencies. Nor does this mean increased prices to consumers as in the long sweep it will mean lower prices to consumers, and, what is of great importance, will do much to insure adequate future food supplies. This movement means that the time is short in which speculators and gamblers can continue to manipulate the prices of the people's food; it means the elimination of unnecessary middlemen and that those performing necessary services shall continue to function only on the supreme condition that they do so economically and at a fair profit.

As a summary of it all, it may be stated that the problem of food production and distribution is not

(*Continued on page* 378)

An Interesting Program

FARM people are talking about our radio service. Quite a few are writing about it, but not enough. It is an unfortunate fact that one of the reasons why city people get more things than farmers is that they are more expressive and make their influence better felt. Farmers are just as appreciative, but they simply do not get around to write letters. As an illustration, the broadcasting station WEAF receives literally thousands of letters every week about their programs and although there is a large number of radio sets in the country, very few of the letters come from country people.

The future of radio is now in the making. We are trying to give the farmers a part in it. E. R. Eastman, Editor of American Agriculturist, talked on the possibilities, from the farmer's standpoint, of the radio, on Wednesday, April 11. Enos Lee, President of the New York State Farm Bureau Federation, spoke on "Cooperation and Orderly Marketing" on April 18. John D. Miller, of the Dairymen's League Cooperative Association and President of the National Milk Producers' Federation, talked to farmers on April 25. On May 2, at 7:30, Mrs. A. E. Brigden, President of the New York State Federation of Home Bureaus, will speak.

Now here is the point. In nearly every farm community, someone has a radio receiving set. Why not have a neighborhood gathering on Wednesday evenings, and listen to our program? Also, and this is very important, note the questionnaire on this page which we printed once before and if you have a radio and have not already sent in this questionnaire, won't you please fill it out and send it in immediately? If you do not have a radio, hand it to someone who has. Write us a letter stating what you think about what we are trying to do, and whether this service should be continued.—The Editor.

Radio Questionnaire

1. Have you a radio receiving set? Yes..... No.....
2. If so is it (1) A Crystal Set..... (2) A Vacuum Tube Set.....
3. How many sets in your immediate vicinity?.....
4. What radio broadcasting stations do you hear?

   1..... 4..... 7.....

   2..... 5..... 8.....

   3..... 6..... 9.....
5. What day of the week and what time of the day or evening is the very best time for broadcasting farm news, market and weather reports?.....
6. How many ordinarily listen in?.....
7. Residence: City..... Town.....
8. Have you a telephone?.....
9. Is your house wired for electric lights?.....
10. How many in the family: Adults Male..... Boys..... Female.... Children Girls....
11. Do you own an automobile.....piano.....player piano..... phonograph..... other musical instruments.....
12. Are you interested in baseball..... swimming..... boating..... camping..... photography..... hunting..... fishing..... other sports.....
13. Periodicals or magazines read: 1..... 2..... 4..... 3..... 5.....
14. Do you patronize the Public Library..... circulating Library.....
15. Upon what particular subjects would you like to hear interesting, instructive or entertaining talks?.....

    .....
16. Name.....
17. Address.....

You can get more days of profitable work out of this sprayer than from any other tool on the place. You won't neglect that important job of spraying, whitewashing or disinfecting, when you can do it so quickly, easily and effectively with a

SMITH No 22 BANNER COMPRESSED AIR SPRAYER

For spraying against insects and fungus on fruit trees, potatoes, vegetables, gardens, shrubs, berries, grapes, flowers; sprays whitewash, paint, Carbola and disinfectants in poultry houses, stables, barns, washes windows, autos and buggies.

Built to stand hard service and strong chemicals. Heavy 4 gallon galvanized steel or solid brass tank; 2 inch seamless brass pump; all brass castings. Few strokes of pump compresses air to discharge contents of tank; fine mist or coarse spray; brass automatic, non-clog-nozzle—no work—just press nozzle handle—acts "Quick as Lightning."

Ask your hardware or implement dealer — you will be surprised at the low price; to avoid disappointment refuse substitutes; insist on the genuine Smith Banner—if he cannot supply you write us for price catalog of over 50 styles of sprayer.

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AND

GROW MORE POTATOES

with less effort and less seed by using

CERTIFIED RUSSET RURAL

Seed of known merit

Our seed is the result of ten years selection and breeding by potato experts.

Write us for prices

THE CROSS FARM, Fayetteville, N. Y.

HEY THERE! Have you neglected to plant that **Strawberry Bed** that your wife and children would so much enjoy? Then don't neglect it any longer. We will send you 100 each, Premier (best early), Big Joe (best medium), Chesapeake (best late), Progressive (best everbearer), —400 in all—for $5.00, **postpaid.** It's a dandy collection. Send now—It's time they were planted.

THE W. F. ALLEN CO., 170 Market St., Salisbury, Md.

THE BEAUTIFUL GLADIOLUS

Send a dollar for 30 bulbs (will bloom this summer), including pink, white, scarlet, yellow, crimson, orange, rare purple, etc., with easy planting directions, postpaid.

Send for free illustrated catalog of over one hundred magnificent varieties.

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Box 351, New Lebanon, N. Y.

GLADIOLUS GORGEOUS

Plant early and often. Our prize mixture of rare kinds. All bloom this year. Large bulbs, 100 for $3.00; 30 for $1.00; florist size, 100 for $1.75, or 50 for $1.00. Mammoth bulbs, 25 for $1.00, postpaid.

R. J. GIBBINS MT. HOLLY, N. J.

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$4.00 BUSHEL

Sweet Clover $7.00; Alfalfa $7.00; Red Clover $12.00; Sudan $6.00; Grimm Alfalfa $20.00; Orchard Grass $2.00; Red Top $2.00; Blue Grass $4.00; Caneseed $2.50; Alsike $10.00; Timothy $4.00; sacks **FREE;** Satisfaction or money back; we ship from several warehouses and save you freight; 5 per cent discount on 5 bushel orders; Order from this ad or write for samples, but get your order in as prices are going much higher.

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VEGETABLE PLANTS

26th YEAR. Cabbage and Snowball Cauliflower plants. Field grown. Two acres. Ready about May 1st. Cabbage, Early Jersey Wakefield, Copenhagen Market, Eukhuizen and eight other kinds. $2.25 per 1,000; 5,000, $10.00; 500, $1.50; 300, $1.00. Snowball Cauliflowers, $5.00 per 1,000; 500, $3.00; 300, $2.00; 200, $1.60; 100, $1.00, List free. No business done on Sundays.

FORD W. ROCHELLE & SONS, Chester, New Jersey

BINDER TWINE

Granges and Farm Bureaus get our low prices. Farmer Agents wanted. Sample free.

THEO. BURT & SONS, Box 70, MELROSE, OHIO

League Price for May $2.33

Farm News from Albany—Eastern Staters Meet

THE Dairymen's League Cooperative Association, Inc. has voted the following prices for the month of May:

Class 1, for fluid consumption, $2.33.

Class 2, for cream and ice cream, $2.05.

Class 3, for milk used chiefly in the manufacture of evaporated, condensed and powdered milk and hard cheese, a differential of 59 cents above the price of milk going into the manufacture of butter, the same as for April.

Class 4, for milk used in the manufacture of butter and cheese, will be determined by the New York market quotations on these commodities.

The April price for Class 1 was $2.80; for Class 2, $2.50. The directors decided upon the decrease for two reasons—the increased seasonal flow and competitive conditions in the New York market.

FARM NEWS FROM ALBANY

The Legislature will adjourn May 4.

* * *

A bill is before the Legislature to amend the Membership Corporations Law to provide that cooperative associations may become members or stockholders in any other cooperative association whether organized under the Membership Corporations Law or under the cooperative law known as Article 13-A. This bill also provides for making contracts with producers for a five-year period with option for renewal for like periods by mutual agreement between the parties.

It provides, furthermore, for filling vacancies by the Board of Directors until the next regular meeting. It gives greater powers to the organizations now existing under our present cooperative laws and allows the tying of the members in so that the organization will have a longer period to get well established in business. On the other hand, if the organization was not properly managed the bill would make it more difficult for the members to change their directors and officers, and more difficult for them to withdraw.

* * *

Another very important bill affecting the cooperative law provides for the issuing of bonds or preferred stock where new or additional capital is required, paying a rate of interest not exceeding 8 per cent. This would allow the establishment of some cooperative enterprises without the investment of so much capital by the farmers themselves. On the other hand, it might give outsiders who made the investments opportunities for getting the control of the cooperative away from the farmers themselves.

This bill also provides that the annual report made by the auditor of the association shall be filed with the Department of Farms and Markets, as it now is, but in such a way that the report cannot be identified as having been furnished by the association. These annual reports now are public property. This provision would keep business information from competitors, but would also make it more difficult to obtain accurate information as to the finances of any cooperative.

* * *

A bill providing for the joint administration of the Cornell Agricultural College and the Geneva Experiment Station has passed the Assembly and is now pending in the Senate Committee. The only opposition to this bill comes from the city of Geneva, which fears that some of the activities of the station might be removed from Geneva to Ithaca. The consolidation has the approval of Dean A. R. Mann of the College of Agriculture, and Dr. Roscoe Thatcher, director of the Experiment Station, and the trustees of both institutions.

* * *

A third bill bearing on indemnities for slaughtered tubercular cattle has passed both Houses, and is before the Governor for his signature. This bill provides funds for payment of slaughtered cattle during the fiscal year 1923 to 1924. It is expected that the three bills, the first two of which have been previously reported, will pay for indemnities for slaughtered cattle until June, 1924.

* * *

A movement is on foot to try to arrange for a demonstration with a large load of apples to be brought through the Barge Canal to New York City with the idea of showing the value of the Barge Canal for such purposes. It is hoped by holding such a demonstration to interest Governor Smith sufficiently to get his backing for the $30,000 appropriation for the big Fruit Show planned for New York next fall.

* * *

The Esmond Bill, which seeks to amend the Highway Law so as to provide state aid to counties for snow removal on highways, was reduced to third reading in the Senate. It has already been passed by the Assembly.

* * *

The Assembly has passed one of Governor Smith's reconstruction bills proposing the constitutional amendment to consolidate 180 State departments and bureaus into 20 major departments and reducing the number of elective State officers from seven to four. As this bill is recommended by the Governor, it is now certain to become a law, so that the proposed amendment will be submitted to the people of the State.—BY OUR SPECIAL CORRESPONDENT.

EASTERN STATES MILK PRODUCERS MEET

The Eastern States Milk Producers, Inc., a group of farmer-owned milk plants controlling the output of 25 plants and stations, held their annual meeting on April 16 in Utica, N. Y., at which time plans were made for the coming year's business.

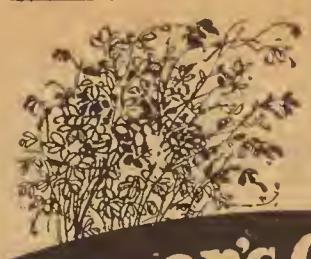
The officers elected for the coming year are M. G. Garlock, President; F. L. Pinckney, vice-president; C. M. Bull, second vice-president; Roscoe Sargent, secretary, and B. J. Shaut, treasurer.

The directors for the coming year are: M. G. Garlock, Indian Castle Dairy Corporation, Utica; F. L. Pinckney, Onondaga Milk Producers' Co-op., Syracuse; Roscoe Sargent, Lacona Milk Corporation, Sandy Creek; B. J. Shaut, Little Falls Dairy Co., Little Falls; Gordon Law, Middleville Milk and Creamery Co.; J. L. Ingersol, Glen Mohawk Milk Association; John Cooper, Bullville Milk Producers' Association; F. E. Gouse, Prospect Cooperative Milk and Cream Co.; J. Saunders, St. Johnsville Dairymen's League Association; B. J. Van Alstine, Canajoharie Milk Co.; Martin Herman, Callicoon Cooperative Dairy Association; E. H. Peet, Addison County Cooperative Dairy Co., Middlebury, Vt.; C. M. Bull, Farmers' Cooperative Milk Co., Poughkeepsie, N. Y.; Scott Hinckley, Cold Spring Creamery, Rosburg, N. Y.; Burton Archibald, New Kingston Cooperative Creamery, New Kingston, N. Y.

The Decline of Agriculture and a Remedy

(*Continued from page* 377)

simply one created by the war, but is a continuing peace problem and that only by the success of these cooperative marketing organizations can the decline in agriculture be checked. Farmers will welcome the cooperation of city consumers and urge that they acquaint themselves with that which the farmers are trying to do. These organizations are constructive—not destructive. They are not tearing down, but building. They are created for self-help and for mutual help, thus stimulating the initiative of their members, while the increased returns to farmers will stimulate production and the enlarged volume of their products entering the arteries of commerce will enrich the lifeblood of the nation, may long postpone the day when this country shall cease to be self-sustaining, and, by enlarging the buying power of forty million people, bring increased prosperity to all industries.



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Three to four stands each growing season. All seed scarified, assuring highest germination. Affidavit of genuineness with every order.

Write for free seed sample and booklet describing origin of Lyman's Grimm Alfalfa.

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are SUPERIOR because

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Oats, Barley, Corn, Potatoes, Beans

Write for Descriptions, Records and Prices

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Strawberry Plants FOR SALE. Ask for Catalog telling all about the great Early Frost Proof strawberry. "Horsey" and 40 other varieties. Lucretia Dewberry, $12 per 1,000. Horseradish and other plants.

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STRAWBERRIES Why buy cheap plants, when you can get the best at rock-bottom prices? The Best and Glen Mary, $8 per 1,000; S. Dunlap, $5.50 per 1,000; all varieties, $1 per 100. Delivered free.

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CIGARS Special Offer! Perfectos, Imported Sumatra wrapper, handmade. While they last $2.25 box of 50. Will suit or your money refunded.

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SALESMAN WANTED To solicit the consuming trade for automobile, tractor and other lubricating oils, greases and paints. Salary or commission. Address, **THE HARVEY OIL COMPANY, CLEVELAND, OHIO.**

SWEET POTATO SEED Yellow Jerseys, Big Stem Jerseys, $1.75 bu. Red Jerseys, $2.25 per bu.

Raise your own plants. **WARREN SHINN, Woodbury, New Jersey**

Baker Heads New Jersey Extension Service

THE New Jersey Agricultural College has called Prof. H. J. Baker of Connecticut to fill the position of Director of Extension in New Jersey, left vacant last January by the death of Prof. L. A. Clinton. Professor Baker, since 1915, has been Extension Director with the Connecticut Agricultural College, a place which he will leave on June 1 to accept the new work in New Jersey. He comes into the State well fitted both in education and experience to fill one of the most important places in the farm leadership of the State.

Professor Baker was raised on a Delaware farm, later completing his education and college work at the Massachusetts Agricultural College. Immediately following graduation, he continued association with the Massachusetts College as assistant to the Director and also as assistant instructor in agronomy. Later he became head of the extension work in farm management in that State; then State County Agent leader. During the war Professor Baker was in the army educational work in France.

* * *

Duroc men in New Jersey and Pennsylvania have been invited to compete in a $600 futurity which will be conducted by the Trenton Fair next September. It is for Duroc spring pigs born after March 1 of this year. Nominations must be made with the Fair Association before June 1. The Inter-State Fair Association of New Jersey contributes $300 in prize money. The American Duroc Jersey Association offers $150, and the Mercer County, N. J., Duroc Association another $150 to be used in nomination fees. County Agent A. C. McLean of Mercer County, N. J., is creating a lively interest in this event, which is the largest single classification for hogs in the East.

Last year's pig show at the Trenton Fair was one of the largest shows in this part of the country, and with the prize money now practically doubled the exhibit promises to be a greater event this season. There will be 16 prizes in each class, which opens the show for even small breeders. The nomination fee for the Duroc-Jersey futurity is $5 for each sow, and all pigs to be shown in this futurity must be regularly entered with the American Duroc-Jersey Association at Chicago, 30 days before the fair. Not more than three prizes in each class can be awarded to any one exhibitor, and all pigs to be shown must be regularly entered in the fair classes for spring pigs and in accordance with the Fair Association rules.

* * *

The Junior Farm Clubs in New Jersey have recently become interested in a novel pig-raising contest which has as its goal a ton of pork from one litter of pigs. Each pig of a litter when entered in the contest will be marked, and the same pigs must be presented and weighed in seven months from the day they are born. The records and weighing will be conducted by County Club and Farm Agents in the various counties. Every litter that develops a total weight of 2,000 pounds will be awarded a gold medal. Club members whose pigs reach weight of 1,800 pounds will get a silver medal, and those weighing 1,600 pounds a bronze medal.

* * *

A recent survey of New Jersey fruit conducted by the State Department of Agriculture indicates that peaches, apples and berries are in splendid condition and undamaged by the cold spring. This brings considerable optimism to the New Jersey fruit men, who have noted the serious damage in Southern States to peaches, early fruit and vegetable crops. Unless later frost injury develops, the department states, the growers have every reason to expect a fine crop of Jersey peaches, apples and general orchard fruits.

* * *

A recent survey of forest conditions in New Jersey indicates that half of the available forest land in the State is undeveloped, while nine-tenths of all lumber used in New Jersey is imported into the State, as well as two-thirds of all wood products used for manufacturing purposes.

General Motors Trucks

Motorize Farm Transportation With A GMC

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And the best way to insure real economical trucking on the farm is to use GMC. Not alone because of the economical initial cost and the remarkably low operating expense of GMC trucks; not because of their exceptional accessibility and refined construction, but also because GMC trucks deliver better transportation over a longer period than is averaged by other trucks.

The exclusive features of GMC construction such as removable cylinder walls, removable valve-lifter assemblies, pressure lubrication, and many others contribute directly to maintaining uninterrupted performance as well as to increasing materially the life of service of these trucks.

Moreover, GMC trucks are complete in every detail, electric lights and generator, magneto ignition, conduit wiring, provision for starting equipment, and complete instrument case are all refinements that are usually found only on passenger cars of the highest quality.

From the speedy, powerful one ton "Jim-Dandy" GMC to the heavy-duty five ton with the famous GMC Two-Range transmission, there is a size for every farm need.

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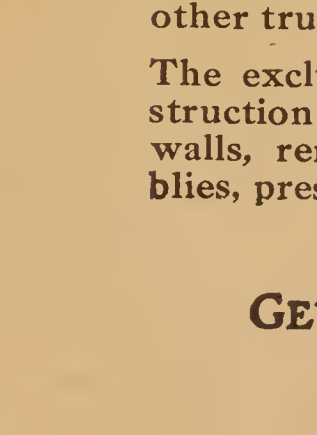

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Did you ever stop to think how many revolutions the wheel of a windmill makes? If the wheel of an Aermotor should roll along the surface of the ground at the same speed that it makes when pumping water it would encircle the world in 90 days, or would go four times around in a year. It would travel on an average 275 miles per day or about 30 miles per hour for 9 hours each day. An automobile which keeps up that pace day after day needs a thorough oiling at least once a week. Isn't it marvelous, then, that a windmill has been made which will go 50 times as long as the best automobile with one oiling?

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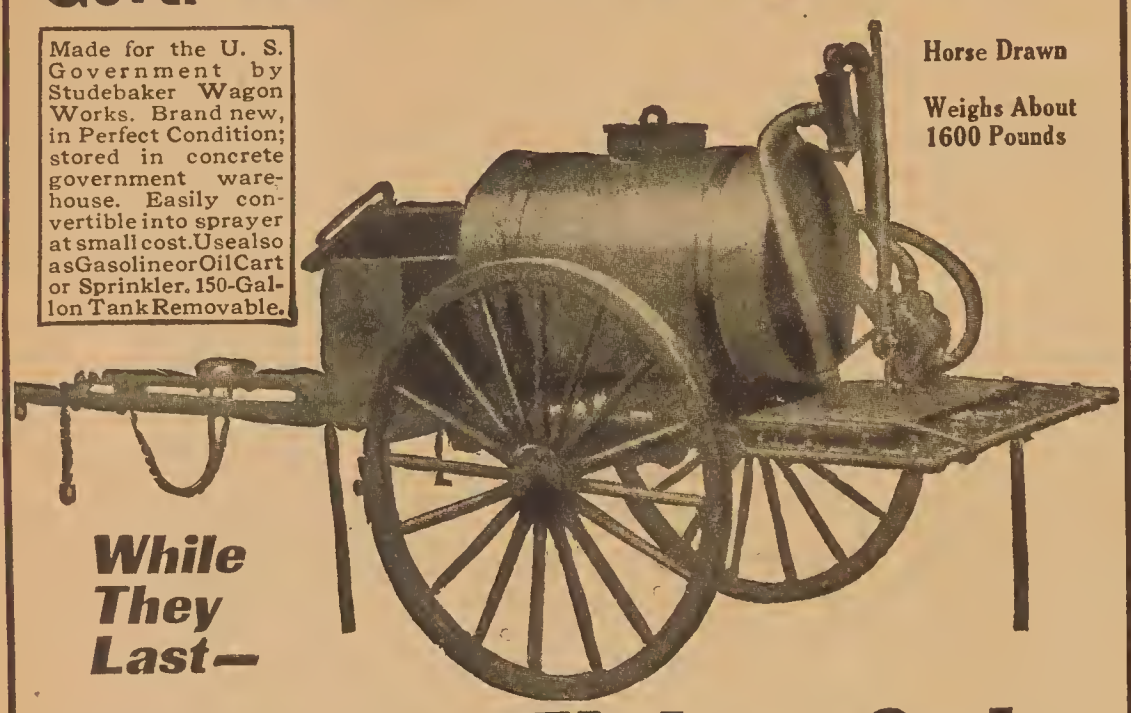

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Weighs About 1600 Pounds

While They Last—

$275.00 Value Only

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A wonderful value from the Government's great war supplies. Any principal part of this equipment is by itself worth the price of all. We understand that these carts cost the government $275.00.

An All-Around Cart Worth Four Times the Price. Even the farmer who needs no water or sprinkling cart should buy one of these; remove the tank and use it for a water, gasoline, oil or disinfectant tank; then build a simple body on the frame and you have an all-around cart worth three times your investment. They are strong and well-made—will last a lifetime.

Only 468 Carts Left We have approximately 468 of these carts, offered to you subject to previous sale. Enclose your check or money order and your cart will be shipped knocked down in original crates, just as received from the Studebaker Wagon Works and Indiana Wagon Works. Shipped F. O. B., Portsmouth, Va.

Rush Your Order This is the value of a lifetime. Take advantage of it. Send in your order today!

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Note these Features

Tank of one-piece galvanized iron with splash partition, solid, riveted joints, 150 gallon capacity. Pump "Red Jacket" or Gould, supposed to be the best pumps on the market. Strainer device. Hose 25 feet long, of 2-inch 4-ply rubber. Standard, approved Brake Rod wheels 54 inches in diameter, 10-inch steel hub. Steel axles. Foot brakes. Tool box under seat. 15 Brass faucets in rear for drawing water, gasoline or oil.

G.L.F. POULTRY RATIONS

Known Ingredients of Known Quality in Known Proportions

Poultry Feeding specialists at the colleges of agriculture in the territory served by the Cooperative Grange League Federation have approved the formulas of G.L.F. Rations.

Practical Poultrymen using the rations the year around report excellent results.

Feed G.L.F. Rations and you will know just what your birds are eating.

See your G.L.F. Agent or write for booklet of formulas.

The Coop. G.L.F. Exchange, Inc.
Syracuse, New York

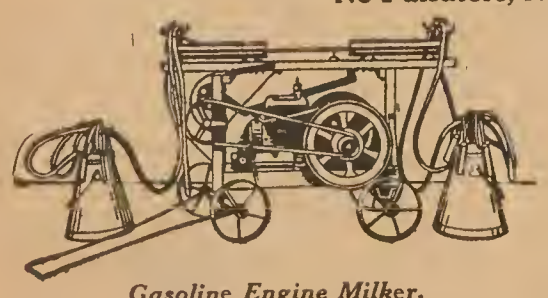
Five Distinctive Features:

1. G.L.F. Poultry rations contain a larger variety of ingredients than is usually available in your locality.
2. The quality of the ingredients and the pounds of each are stated.
3. The digestible nutrients in each ration are high and the fibre content is low.
4. Dried buttermilk and dried skimmed milk are used and the animal proteins are high.
5. Accurately operated mechanical mixtures make a thoroughly mixed and uniform ration.

G.L.F. Quality

ANDERSON PORTABLE MILKERS

Simple, Sanitary, Easily Operated, Fast Milking, No Installing, No Pulsators, No Pipes, No Tanks



Gasoline Engine Milker. Electric Milkers also

Milks anywhere in back or in front of the cows in one barn or another, and also can do the washing for Mrs. or any other power chores besides milking.

No better or faster milking done by any other make of milking machine at any price. Will demonstrate in your stable before you buy. Arrange for a machine now.

ANDERSON MILKER CO., Inc., Randolph, N. Y.

When writing to advertisers please mention American Agriculturist.

Firemen, Brakemen beginners, $150-$250 monthly; railroads everywhere (which position?) Railway Association, Desk W-16, Brooklyn, N. Y.

Pennsylvania Farm News

Growers Adopt Standardized Fertilizer Formulas

FOLLOWING the experiments of several states last year, Pennsylvania farmers recently agreed upon 13 general and five special fertilizer fromulæ as sufficient to meet the general needs of Pennsylvania farmers. This number of fertilizers, according to Dr. J. W. Kellog, Chief of the Bureau of Chemistry of the Pennsylvania State Department of Agriculture, is in striking opposition to the 140 varied analyses sold in the State last year.

A smaller number of formulæ will decrease manufacturing costs, reduce transportation and other overhead expenses.

* * *

The Pomona Grange of Tioga County recently gave $1,000 to the Pennsylvania State College Emergency Building Fund. This is one of the largest Grange gifts yet made to the college. More than 13,000 people have already pledged $1,165,000 for buildings at the college, most of which will be those for student health and welfare facilities. Indiana County alumni recently completed their quota of $15,000.

* * *

The tobacco men of Lancaster County, Pa., report a large acreage of the standard sorts this season, and interest has been keen for some weeks on the matter of securing good seed. The growers have been working closely with the Lancaster County Farm Bureau, which has encouraged the use of several standard varieties and the elimination of sorts which do not come up to market requirements. The County Agent has been responsible for cleaning of several hundred pounds of seed, which it is expected will mean more profitable production for the grower.

POTATO OUTLOOK IN LEHIGH-BERKS DISTRICT

OLIVER D. SCHOCK

It is predicted that the 1923 potato acreage in the famed Berks-Lehigh district will exceed any previous year. More "Russet" potatoes will be planted this season than ever before.

The yield of Pennsylvania potatoes shows an aggregate increase of more than 2,000,000 bushels during the past five years, according to Dr. E. L. Nixon, plant pathologist.

Immigration Not The Remedy

(*Continued from page* 375)

important for the happiness of our children and grandchildren that the right type of immigrants come to this country as it is that we leave them an inheritance? The American farmer in the South wanted cheap labor so as to earn money rapidly. He brought in the negro. Many of his descendants have lost their money, but they still have the negro. Such an experience ought to be sufficient to warn other farmers against any temporary solution that may have in it future difficulties.

Persons from northwestern Europe are so similar to the majority of Americans in race, social ideas, and ideas of government that they quickly intermarry and are fully assimilated. We can assimilate all of these who desire to come.

Persons who come from southern and eastern Europe are often so different in race and in their philosophies of life and government that they do not tend to accept American ways quickly. They are very slow to intermarry, and many are completely out of sympathy with our type of government. Some of these people are so different from the people of northern Europe that where they have come in contact for many centuries in Europe there has been perpetual trouble. It would seem to be a wise policy not to receive immigrants more rapidly than they can be Americanized and assimilated. It is not in the best interest of the people who live in a country to have a medley of people. The Balkans are medley enough for one world.

Some persons oppose any restriction of immigration because of the sympathy that they have for the prospective immigrant. But it is not necessary that all immigrants come to this country. There is room for thousands of them in South America. The continent of South America and Mexico in North America were largely settled by people from southern Europe. There is room for many more. These people are developing social and governmental customs that are very satisfactory to them. These customs differ somewhat from the customs that are preferred by the persons from northern Europe. There is plenty of room for all of the Europeans who desire to go to South America so that restriction of immigration into the United States does not close the door of opportunity. There are also many opportunities available in Africa.

Just at present we are having a wave of business activity and great demand for labor. These waves of prosperity are followed by waves of depression. The periods of good and bad times are often approximately two years in length. If we try to bring in enough immigrants whenever we have a period of prosperity so as to hold wages down, we may be sure that we will have these same immigrants in the periods of unemployment which come too soon. Most persons have already forgotten that we had an unemployment conference a little over a year ago, and that we are likely to need another before many years go by.

A number if improvements can be made in the present immigration law, but it is the opinion of the writer that if we return to anything like unrestricted immigration it will be injurious to the farmer and even more injurious to national welfare.

PAINT $1.25 PER Gallon

ORDER DIRECT FROM FACTORY

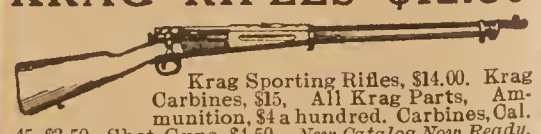
We will send you as many gallons as you want of good quality red or brown

BARN PAINT

upon receipt of remittance. We are paint specialists and can supply you with paint for any purpose. Tell us your wants and let us quote you low prices. We can save you money by shipping direct from our factory. Satisfaction Guaranteed. On orders for thirty gallons or over we will prepay the freight within a radius of three hundred miles.

AMALGAMATED PAINT CO.
Factory: 374 WAYNE ST., JERSEY CITY, N. J.

KRAG RIFLES $12.50



Krag Sporting Rifles, $14.00. Krag Carbines, $15, All Krag Parts, Ammunition, $4 a hundred. Carbines, Cal. 45, $3.50. Shot Guns, $4.50. *New Catalog Now Ready.*

W. STOKES KIRK 1627-CH North 10th St. Philadelphia, Pa.

RAISE SILVER FOXES

Capital unnecessary, $5 or more a month will give you some highest-quality breeders. Investigate NOW our plan of unequaled co-operation.

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KITSELMAN FENCE

"I Saved $95.18," says John W. Kemp, Alton, Ind. You, too, can save. **We Pay the Freight.** Write for Free Catalog of Farm, Poultry, Lawn Fence.

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COMBINATION HAIR NET PACK 25c

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FULL LINE QUICK SELLERS FOR AGENTS

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TOBACCO GROWERS' UNION, Murray, Ky.

Better than Whitewash

CARBOLA
The Disinfecting White Paint

It takes less than five minutes to mix the Carbola powder with water and have it ready to use as a white paint and powerful disinfectant. *No waiting or straining; no clogging of sprayer.* Does not spoil. Does not peel or flake. Disinfectant is right in the paint powder—one operation instead of two. Gives better results, costs less. Used for years by leading farms.

Your hardware, paint, seed or drug dealer has Carbola, or can get it. If not, order direct. Satisfaction, or money back. 10 lbs. (10 gals.) $1.25 and postage; 20 lbs. (20 gals.) $2.50 delivered; 50 lbs. (50 gals.) $5.00 delivered; 200 lbs. (200 gals.) $18.00 delivered; trial package and booklet 30c.

Add 25% for Texas and Rocky Mt. States

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Made from heavy, tough wrought steel—double tinned—they wear well and the handles are shaped just right to fit your hand.

From 34 years experience we know you'll find satisfaction with our line of milk cans and other dairy equipment.

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Creamery, Dairy and Dairy Barn Equipment
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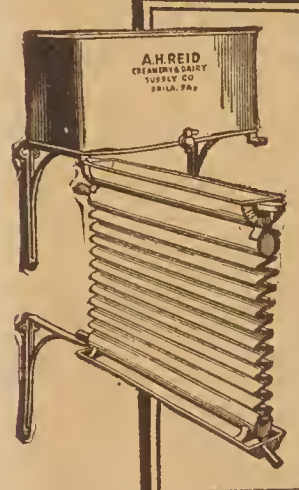

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MILK COOLER

Milk not cooled over a Reid Cooler is likely not properly cooled. Get a Reid and save sour milk losses. By far the best cooler; most easily cleaned. *We have added a farmer's heavy pressure cooler, tubular type, to our line. Write for prices or ask your dealer.*

A. H. Reid Creamery and Dairy Supply Co.
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Cost Less
PER YEAR

"They cost no more, but they do last longer", is what users say. Superior materials and more careful workmanship make extra years of service. Creosoted staves are heavy and carefully matched. Hoops of best steel, with oversize thread. Doors fit like safe or refrigerator. Wooden ladder rungs. Held erect by Green Mountain anchor system. BOOKLET FREE.

Write for Special Offer on Early Orders

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GREEN MOUNTAIN SILOS

I will condition a Horse or Cow in twelve days

put flesh on its bones. Give it life and vigor. Can add 50 per cent to looks and value. Satisfaction guaranteed or no pay. Send postal for free offer.

P. A. FAUST BRYN MAWR, PA.

A Beer Keg in the Bull Pen

One Way to Spend Sunday Afternoon

By H. E. BABCOCK

SOME of the older readers of the American Agriculturist may remember, when on occasional trips to town for a supply of staple groceries, seeing enormous trucks loaded with what may best be described, so the present generation may understand it, as miniature molasses barrels.

These small barrels were popularly known as beer kegs. They were used for storing an amber liquid which was formerly much sought after by farm hands and others. Although they have served their purpose, these kegs still may be found, and the other day I heard of a most practical use for them.

For years we have been taught to keep a bull until its daughters were old enough to determine the value of the animal as a herd sire. Where we have done this we have run into some very practical difficulties. The only safe place for a four or five-year-old bull is in a strong pen; kept in this way for very long without his natural exercise the utility of the animal for breeding soon disappears.

To prevent this, various devices have been resorted to, so he might have the necessary exercise. Some farmers use tread powers; others build large yards; and one man I know of hangs a block of wood on a rope from the ceiling of the bull's stall, this block of wood serving as a sort of punching bag with which the bull gets a truly astounding amount of exercise.

None of these devices have seemed practical in our case, and we have been at a loss to know what to do until a friend came along and suggested the beer keg. His idea is for us to simply throw a beer keg in the stall and let the bull do the rest. He assures us that if we will do this the bull will put in most of his time wrestling with the keg and trying to corner it so he can smash it. The keg having been built to withstand considerable pressure from the inside and being slippery for a bull to get hold of, refuses to be cornered or to be smashed.

As a result, says our friend, the bull will get the exercise he needs. We would like to try the idea, but alas, we haven't a beer keg.

I Look Over Some Legume Hay in the Making

I know of no more pleasant way to spend a Sunday afternoon than in an inspection of the fields and crops on a farm. Whenever I can I plan to put in my Sunday afternoon this way. Yesterday I made a particular point of studying last year's seedings of clover and alfalfa.

I went out, I must admit, prepared for almost any sort of a disappointment because the weather for the last month has been about the hardest I have ever experienced for new seedings. The fact that I came back delighted with what I found, I am convinced, is due entirely to the known-origin, hardy seed which we used exclusively for the first time last year.

We first came to a sixten-acre field of clover seeding. This was put in with rye last spring and the rye and seeding top-dressed with stable manure. Last fall the clover was ten inches high in places and as thick as it would stand. We tried the experiment of pasturing it off and made a lot of milk from it. This spring apparently every clover plant is alive; it would seem to prove that new seeding may safely be pastured if it is not cropped off too closely.

Perfect Stand of Grimm Alfalfa

Next we came to a four-acre field, seeded last spring with wheat to Grimm alfalfa, twelve pounds to the acre. Here we found an almost perfect stand, except in one place, where water had run over the field and left a slight deposit of silt and mud; in this place the alfalfa had apparently smothered out.

Further evidence of the fact that alfalfa will not stand smothering was furnished in the next field, an eight-acre field seeded to 15 pounds of common Northern-grown alfalfa with oats last spring. The oats grew very large, yielding over fifty bushels to the acre. In some places they lodged, and wherever this occurred not an alfalfa plant could be found.

The really interesting point in the afternoon's inspection, however, came when we struck a gravelly eight-acre field, long considered one of the poorest on the farm.

This field we summer-followed last summer with the intention of seeding it to alfalfa in August. We got behind in our work, and when August came the field was as hard as a city pavement; we had to wait for fall rains and consequently did not get it in until about October 1.

Last fall the little plants barely showed themselves; this spring we find a perfect stand of strong, healthy alfalfa plants. It is the best test of the remarkably hardy qualities of true Grimm alfalfa that has ever come to my attention.

PENNSYLVANIA CATTLE FEEDERS' MEETING MAY 4

The annual Pennsylvania Cattle Feeders' meeting will be held at the Pennsylvania State College on Friday, May 4. At this time the steer-feeding experiments for the year will be concluded and the results announced.

Sixty head of cattle divided into five lots will have been on feed for a period of 140 days at the close of the feeding test. The following rations are being fed this year:

Lot I—Corn silage, shelled corn (full feed), cottonseed meal and corn stover.

Lot II—Corn silage, shelled corn (two-thirds full feed), molasses replacing one-third of the corn in the ration, cottonseed meal and corn stover.

Lot III—Mixed hay, shelled corn (full feed), and cottonseed meal.

Lot IV—Mixed hay, shelled corn (two-thirds full feed), molasses replacing one-third of the corn in the ration and cottonseed meal.

Lot V—Corn silage, corn stover and cottonseed meal.

These cattle were purchased on the Chicago market in December and shipped direct to the College and placed on feed December 13.

An interesting program has been arranged for the occasion. Addresses will be made by cattle feeders, stock yards and packing-house representatives, in addition to the announcement and discussion of the results of the experiment.

MARKET MILK GRADES GET RECOGNITION IN NEW JERSEY

The fight for better city milk ordinances is gaining ground in New Jersey, although State aid along this line requested from the New Jersey Legislature by dairymen this year was not forthcoming. The municipalities of Princeton, Red Bank and Roselle Park, N. J., have recently passed ordinances that will give further guarantees of purity and classification of grades in those cities.

Three market classifications have been recommended jointly by the New Jersey Bureau of Markets and the New Jersey State Department of Health. They provide for certified milk, raw milk from tuberculin-tested cows, and pasteurized milk. Cities which accept this grading require dealers to adopt one or more of the grades. They impose heavy penalties for misbranding. There is no State law at the present time which requires the adoption of these grades by any municipality; the teeth in the fight for standardized grades of milk come from municipality ordinances. Dairymen whose herds produce good milk under sanitary conditions from healthy cows have enthusiastically backed this grading campaign.—W. H. BULLOCK.

I prize the American Agriculturist very much, and have often found in it information which has been very valuable to me in many ways.—Alva Gaylord, Itaska, N. Y.

UNADILLA SILOS

THE gambrel roof of Unadilla Silos insures a full silo when silage settles.

The filling door is at the top which permits the full use of the extra space offered by the gambrel roof.

Silage settles from 15 to 20 per cent. You pay for a certain capacity silo. You get it with a Unadilla Silo and a Unadilla Gambrel Roof.

Write for big new Unadilla Catalogue and learn how early orders earn extra discounts.

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CORONA WOOL FAT COMPOUND

is a wonderful healing remedy for man or beast. For Chapped Hands, Chillblains, Cuts, Wounds and Sores, Galled Sore Necks and Shoulders, Sore Teats, Caked Udders, etc., it is unequalled. Use it once—you'll keep it on hand all the time. At druggists and dealers. If yours can't supply, write us.

Sample FREE
Write for Free Sample Box.

Test it and see for yourself how quickly it heals and relieves pain. No obligation.

THE CORONA MFG. CO.
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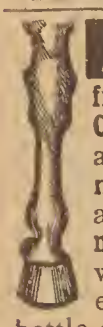

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from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone, or similar troubles and gets horse going sound. It acts mildly but quickly and good results are lasting. **Does not blister or remove the hair** and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.50 a bottle delivered. **Horse Book 9 R Free.**

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Get Jim Brown's new FACTORY PRICES

"Saved $56.00 on my order. I paid you 37c per rod, and fence here no better is 93 3-4 cts." —Charles Rowe, Stella, Mo.

Write quick for my big new book of money-saving factory prices on highest quality Fence, Gates, Steel Posts, Paints, Roofing. FREIGHT PREPAID. Don't pay a penny more than Jim Brown's factory prices. Highest Quality, backed by guarantee. Write for 104-page money-saving bargain book.

Brown Fence & Wire Co., Dept 3002, Cleveland, O.

FENCE GATES POSTS ROOFING PAINT

HEAVES Is your own horse afflicted? Use 2 large cans. Cost $2.50.

Money back if not satisfactory

ONE can at $1.25 often sufficient. In powder form.

Most for cost

30 years' sale

NEWTON'S

A veterinary's compound for Horses, Cattle and Hogs. Heaves, Coughs, Distemper, Indigestion. Worm expeller. Conditioner. At dealers' or by parcel post.

THE NEWTON REMEDY CO., Toledo, Ohio

THE FRONT THAT GAVE THE **GRIFFIN SILO FAME**

AN unobstructed continuous opening. Doors absolutely tight but will not swell. Permanent steel ladder attached to front. Everything first class and prices right. Liberal discount to reliable agents—Wanted in every town.

GET OUR LARGE FREE CATALOG

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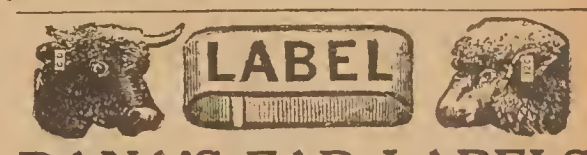

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Are stamped with any name or address with serial numbers. They are simple, practical and a distinct and reliable mark. Samples free. Agents wanted.

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THIS IS *YOUR* MARKET PLACE

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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS—BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

ORIGINAL D. W. YOUNG STRAIN Single Comb White Leghorns. Strictly exhibition stock. Cocks and Cockerels, $5 and $10 each. C. O. D. if desired. Eggs, $3 per 15. MAPLE HILL FARM, Fort Plain, N. Y.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

TORMOHLEN'S EVERLAY BROWN LEGHORNS; strain holding world's record for best layers. Day-old chicks, hatching eggs reasonable. SUNNYSIDE FARM, Emporium, Pa.

BARRED PLYMOUTH COCKEREL—Thompson Strain, direct; 240 eggs yearly per hen. Free range; satisfaction guaranteed. At $5.00 each. JAS. SINSABAUGH, Pine Bush, N. Y.

BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

SINGLE COMB WHITE LEGHORN HATCHING EGGS, from two year old stock, Wycoff strain, $2 for 24; $7 per hundred, delivered. ALLAN MORTON, Ashville, N. Y.

JERSEY BLACK GIANTS—Select hatching eggs, $5; utility stock, $3.50. Infertile eggs replaced. Write for prices on day-old chicks. Z. E. COMSTOCK, Fabius, N. Y.

BROTHER—We make a specialty of S. C. W. Leghorn Chicks, bred with the winter lay, farm raised; circular free. OAK HILL POULTRY FARM, Route 2 B, Bath, N. Y.

REAL RED REDS, Single Comb, pure bred, hatching eggs; redueed prepaid price, fifteen, $1.50; fifty, $4. MEADOWBROOK FARM, Route 3, Lancaster, Pa.

LIMITED NUMBER CHICKS—Cornell certified stock, large fowls, 250 egg strain; 95% chalk-white eggs. Price list free. E. COYLE, Branchport, N. Y.

RHODE ISLAND REDS (both combs), famous Red Cherry strain. Eggs $2 per 15 delivered. SPRINGDALE FARM, Wyalusing, Pa.

BABY CHICKS—Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

ROSE-COMBED BROWN LEGHORNS—Big hens, layers; 30 eggs, $3.50; postpaid. Write wants. 23d year. H. LAMSON, Cameron, N. Y.

SINGLE COMB BLACK MINORCAS, Great layers, Cockerels and Hens eggs, 15, $2; 100, $8. THOMAS EBERSOL, Carrollton, O.

FOR SALE—12 Single Comb Brown Leghorn Hens. One elegant male. This is A1 stock. E. E. BOYCE, Ballston Spa, N. Y.

PEARL GUINEAS. White Wyandotte, Mammoth Pekin Duck Eggs. LAURA DECKER, Stanfordville, N. Y.

WILL SELL nine S. C. White Orpington Pullets, May hatch, also one rooster; write for prices. WELLS M. DODDS, North Rose, N. Y.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

TWO PENS WHITE WYANDOTTES. LAURA DECKER, Stanfordville, N. Y.

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TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point. Ohio.

FEW WHITE HOLLAND TOMS. Few equal, none better than Anderson's strain, $15 and $20. H. W. ANDERSON, Stewartstown, Pa.

NARRAGANSETT TURKEY EGGS—10, $6. M. V. CALDWELL, Lisbon, Ohio.

BEES

HONEY, finest quallty clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, Roxbury, N. Y.

CLOVER HONEY—Five-pound pail, $1.00; postpald into thlrd zone. JOHN MOSHER, Moravia, N. Y.

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The Valley of the Giants—*By Peter B. Kyne*

SHIRLEY'S lip curled. She sensed the hypocrisy between the lines.

"He has gone to San Francisco for more ammunition," she soliloquized. "Very well, Unkie-dunk! While you're away, I shall manufacture a few bombs myself."

After breakfast she walked to the intersection of B with Water Street. Jules Rondeau and his crew of lumber-jacks were there, and with two policemen guarded the crossing.

Rondeau glanced at Shirley, surprised, then lifted his hat.

"Rondeau," she said, "Mr. Cardigan is a bad man to fight. You fought him once. Are you going to do it again?"

He nodded.

"By whose orders?"

"Mr. Sexton, she tell me to do it."

"Well, Rondeau, some day I'll be boss of Laguna Grande and there'll be no more fighting," she replied, and passed on to the office of the Cardigan Redwood Lumber Company. Moira McTavish looked up as she entered.

"Where is he, dear?" Shirley asked. "I must see him."

"In that office, Miss Shirley," Moira replied, and pointed to the door. Shirley stepped to the door, knocked and then entered. Bryce Cardigan, seated at his desk, looked up as she came in. His left arm was in a sling, and he looked harassed and dejected.

"Don't get up, Bryce," she said as he attempted to rise. "I know you're quite exhausted." She sat down. "I'm so sorry," she said softly.

His dull glance brightened. "It doesn't amount to that, Shirley." And he snapped his fingers. "What did you want to see me about?"

"I wanted to tell you," said Shirley, "that—that last night's affair was not of my making." He smiled compassionately. "I—I couldn't bear to have you think I'd break my word and tell him."

"It never occurred to me, Shirley. Please don't worry about it. Your uncle has had two private detectives watching Ogilvy and me."

"Oh!" she breathed. A ghost of the old smile lighted her winsome features. "Well, then," she challenged, "I suppose you don't hate me."

"On the contrary, I love you," he answered. "However, since you must have known this for some time past, I suppose it is superfluous to mention it. Moreover, I haven't the right—yet."

She cast her eyes down, then raised them and looked at him searchingly. "I suppose you'll acknowledge yourself whipped at last, Bryce?" she ventured.

"I want peace, too," he answered wearily. "I'd be glad to quit—with honor. And I'll do it, too, if you can induce your uncle to give me the kind of logging contract I want with his road."

"I couldn't do that, Bryce. He is not merciful to the fallen. You'll have to—surrender unconditionally." Again she laid her little hand timidly on his wounded forearm. "Please give up, Bryce—for my sake."

"I suppose I'll have to," he murmured sadly. "I dare say you're right. I suppose," he continued bitterly, "your uncle is in high feather this morning."

"I don't know, Bryce. He left in his motor for San Francisco about one o'clock this morning."

FOR an instant Bryce Cardigan stared at her; then a slow, mocking little smile crept around the corners of his mouth.

"Glorious news, my dear Shirley! So the old fox has gone to San Francisco, eh? Couldn't wait for the regular passenger-steamer to-morrow, eh?" And Bryce commenced to chuckle. "Oh, the poor old Colonel," he continued presently, "the dear old pirate! What a horrible right swing he's running into! And you want me to acknowledge defeat! My dear girl, there is nothing doing. I shall put in my crossing Sunday morning. Drop around and see me in action."

"You mustn't try," protested Shirley. "Rondeau is there with his crew—and he has orders to stop you. Besides, you can't expect help from the police. Uncle Seth has made a deal with the Mayor," Shirley pleaded frantically.

"That for the police and that venal Mayor Poundstone!" Bryce retorted, with another snap of his fingers.

"I came to suggest a compromise, Bryce," she declared, but he interrupted her.

"You can't effect a compromise. You've been telling me I shall never build the N. C. O. You're powerless, I tell you. I shall build it."

"If you loved me, you wouldn't oppose me," she protested softly. "I tell you again, Bryce, you make it very hard to be friendly with you."

"I don't want to be friendly with you. You're driving me crazy, Shirley. Please run along home. I've tried to understand your peculiar code, but you're too deep for me. George Sea Otter is outside. Tell him to drive you. I suppose you're afoot to-day, for I noticed the Mayor riding in your sedan this morning."

She tried to look outraged, but for the life of her she could not take offense at his bluntness.

"Oh, very well," she replied with what dignity she could muster. "Have it your own way. I've tried to warn you. Thank you for your offer of the car. Uncle Seth sold my car to Mayor Poundstone last night."

"Ah! Then it was that rascally Poundstone who told your uncle about the temporary franchise, thus arousing his suspicions to such an extent that when he heard his locomotive rumbling into town, he smelled a rat and hurried down to the crossing?"

"Possibly. The Poundstones dined at our house last night."

"Pretty hard on you, I should say. But then I suppose you have to play the game with Uncle Seth. Well, good morning, Shirley."

"You're horrid, Bryce Cardigan."

"You're adorable. Good morning."

"You'll be sorry for this," she warned him. "Good morning." She passed out into the general office, visited with Moira about five minutes, and drove away in the Napier. Bryce watched her through the window.

"God bless her!" he murmured. "She's been my ally all along, and I never suspected it!"

HE sat musing for a long time. "Yes," he concluded presently, "old Poundstone has double-crossed us—and Pennington made it worth his while. And the Colonel 'sold' the Mayor his niece's automobile. I smell a rat as big as a kangaroo. In this case two and two don't make four. They make six! Guess I'll build a fire under old Poundstone."

He called up the Mayor. "Bryce Cardigan speaking, Mr. Poundstone," he greeted the chief executive.

"Oh, hello, Bryce," Poundstone boomed. "How's tricks?"

"So-so! I hear you've bought that sedan from Colonel Pennington's niece. Wish I'd known it was for sale. I'd have outbid you. Want to make a profit on your bargain?"

"No, not this morning, Bryce. Mrs. P. has been wanting a closed car for a long time, and when the Colonel offered me this one at a bargain, I snapped it up."

"And you don't care to get rid of it at a profit?" Bryce repeated.

"No, siree!"

"Oh, you're mistaken, Mr. Mayor. I would suggest that you take that car back to Pennington's garage and leave it there. That would be the most profitable thing you could do."

"Wha—what—what in blue blazes are you driving at?" the Mayor sputtered.

"I wouldn't discuss it over the telephone. However, a hint to the wise is sufficient. To-day is Friday, and Friday is an unlucky day. I'd get rid of that sedan before noon if I were you."

There was a long silence. Then in a singularly small, quavering voice: "You think it best, Cardigan?"

"I do. Return it to No. 38 Redwood Boulevard, and no questions will be asked. Good-bye!"

When Shirley reached home at noon, she found her car, and a brief note informed her that after thinking the matter over, Mrs. Poundstone had decided the family could not afford such an extravagance, and accordingly the car was returned with many thanks for the opportunity to purchase it at such a ridiculously low figure. Shirley smiled, and put the car up in the garage. When she returned to the house her maid Thelma informed her that Mr. Bryce Cardigan had been calling her on the telephone. So she called Bryce up at once.

"Has Poundstone returned your car?" he queried.

"Why, yes. What makes you ask?"

"Oh, I had a suspicion he might. You see, I called him up and suggested it; somehow His Honor is peculiarly susceptible to suggestions from me, and——"

"Bryce Cardigan," she declared, "you're a sly rascal. I shan't tell you another thing."

"I hope you had a stenographer at the dictograph when the Mayor and your uncle cooked up their little deal," he continued. "That was thoughtful of you, Shirley."

"Really, I believe you're happy to-day."

"Happy? If the streets were paved with eggs, I could walk them all day without making an omelette."

"It must be nice to feel so happy, after so many months of the blues."

"Indeed it is, Shirley. You see until very recently I was very much worried as to your attitude toward me. I couldn't believe you'd so far forget yourself as to love me in spite of everything—so I never took the trouble to ask you. And now I don't have to ask you. I know! And I'll be around to see you after I get that crossing in!"

"You're perfectly horrid," she blazed, and hung up without the formality of saying good-bye.

CHAPTER XXIX

SHORTLY after Shirley's departure from his office, Bryce had a visit from Buck Ogilvy. The latter wore a neatly pressed suit of Shepherd plaid, with a white carnation in his lapel. He struck an attitude and demanded:

"Boss, what do you think of my new suit?"

"You lunatic! Don't you know red blonds should never wear light shades? You're dressed like a negro minstrel."

"Well, I feel as happy as an end-man. And by the way, who's chirked you up? When we parted last night, you were forty fathoms deep in the slough of despond."

"No less a divinity than Miss Shirley Sumner! Quite innocently she imparted the information that old Pennington lighted out for San Francisco at one o'clock this morning. Wherefore I laugh. Te-he! Ha-hah!"

"Three long, loud raucous cheers for Uncle. He's gone to rush a restraining order through the United States District Court. Wonder why he didn't wire his attorneys to attend to the matter for him."

"He has the crossing blocked, and inasmuch as the Mayor feeds out of Pennington's hand, the Colonel is quite confident that said crossing will remain blocked. As for the restraining order—well, if one wants a thing well done, one should do it oneself."

"All that doesn't explain your cheerful attitude, though."

"Oh, but it does. I've told you about old Duncan McTavish, haven't I?" Ogilvy nodded, and Bryce continued: "When I fired the old scoundrel for boozing, it almost broke his heart; he wandered down into Mendocino County and got a job sticking lumber. He's been there two months now, and I am informed that old Mac hasn't taken a drink in all that time. And what's more, he isn't going to take one again."

"How do you know?"

"Because I make it my business to find out. Mac was the finest woods-boss this county ever knew; hence you do not assume that I would lose the old scoundrel without making a fight for him, do you? Why, Buck, I only fired him to reform him. Well, last week I sent one of Mac's old friends down purposely to invite him out 'for a time'; but Mac wouldn't drink."

"I know what your plan is," Ogilvy interrupted. "You're going to ask Duncan McTavish to waylay Pennington, kidnap him, and hold him until we have had time to clear the crossing."

"We will do nothing of the sort," Buck continued seriously. "Listen, now, to Father's words of wisdom. Didn't you hear me tell that girl and her villainous avuncular last night that I had another ace up my kimono?"

Bryce nodded.

"That was not brag, old dear. I had the ace, and this morning I played it—wherefore in my heart there is peace."

HE opened a drawer in Bryce's desk and reached for the cigars.

"Not at all a bad cigar for ten cents. However—you will recall that from the very instant we decided to cut in that jump-crossing, we commenced to plan against interference by Pennington; in consequence we tried to keep our decision a secret. However, there existed at all times the possibility that Pennington might discover our intentions and block us with his only weapon—a restraining order.

"Now, one of the most delightful things I know about a court is that it is open to all men. Also there is a wise old saw to the effect that battles are won by the fellow who gets there first with the most men. The situation was absurdly simple. If Pennington got to the District Court first, we were lost!"

"You mean you got there first?" exclaimed Bryce.

"I did—by the simple method of preparing to get there first in case anything slipped. Something did slip—last night! However, I was ready. Several days ago, my boy, I wrote a long letter to our attorney in San Francisco explaining every detail of our predicament; the instant I received that temporary franchise, I mailed a certified copy of it to him also. Then I instructed the attorney to prepare the complaint and petition for a restraining order against Seth Pennington et al. and stand by to rush the judge with it the instant he heard from me!

"Well, about the time old Pennington started for San Francisco this morning, I had our attorney out of bed on the long-distance telephone; at nine o'clock this morning he appeared in the District Court; at nine-fifteen the judge signed a restraining order forbidding our enemies to interfere with us in the exercise of a right legally granted by the city of Sequoia, and at nine-thirty a deputy United States marshal started in an automobile for Sequoia. He will arrive late to-morrow night, and on Sunday we will get that locomotive out of our way and install our crossing."

"And Pennington——"

"Ah, the poor Pennington! *Mon*

(*Continued on page* 384)

WHAT HAS HAPPENED IN THE VALLEY OF THE GIANTS

BRYCE CARDIGAN and Buck Ogilvy are determined that that jump-crossing shall go in. Colonel Seth is equally determined that it shall not. A battle royal is in progress, Bryce and Buck having outwitted the Colonel by obtaining a franchise, the Colonel being the stronger, however, both in finances and because he is utterly unscrupulous.

Shirley fights fairly, and is just beginning to suspect her uncle's methods in protecting their joint interest. She has managed to maintain her friendship with Bryce and also with Moria MacTavish, his office aide, with whom redheaded Buck has fallen deliriously in love. Through Bryce, Shirley obtains a dictograph to overhear the secret conversation of her uncle and Mayor Poundstone.

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Home Bureau Conference

Successful Meeting of State Workers

RESIDENTS of New York City, or, at the other extreme, of isolated communities of the State, would have been amazed had they dropped into any of the meetings at the recent conference of extension workers in home-making held in New York.

Demonstration agents from the home bureaus of the State, specialists and leaders from Ithaca and representatives of the Home Bureau Federation, marshaled by the energetic president, Mrs. A. E. Brigden, made up the attendance.

Many New York State women, city and country alike, may never have realized that there is such an organization as the Home Bureau established in 35 counties, with 3,104 members. Yet here were 60 representatives of the State College of Agriculture, which is behind this organization, spending five crowded non-union houred days discussing its past, present and future problems.

Aims of Home Bureau

The aims of the Home Bureau are many: to bring the woman on isolated farms into a consciousness of neighbors, to help her with her home problems, and to band the women of the State together for organized community work. This is done partly by direct contact with the agent in the county, and partly by projects conducted by specialists from the school of home economics. Projects conducted last year, and to be continued next, were on clothing, with special emphasis on its selection and care; nutrition, showing the connection between food habits and health; household management and arrangement of kitchens and labor-saving equipment; health in anti-cold and anti-fly campaigns; and the selection of inexpensive household furnishings and color and material in design. Women who are unable to come out to meetings may follow the projects at home by directions sent from the school.

The field of the home bureaus is increasing so rapidly that the agent in charge of each county is in danger of finding herself scheduled with more work than she can possibly get through. Unless she is given assistance, some essentials in her work will have to be neglected. How to develop in each county local leadership that will relieve the agent and at the same time develop the ability of individual women was one problem discussed at the conference. Local leaders are women trained by the specialists from the school of home economics who represent the agents in the communities.

"Seeing New York" Trip

The members of the conference saw at first hand the important part that the fluid milk from up-State farms plays in the lives of New York City school children. Through the courtesy of Miss Laura Gamble, nutritionist with the New York office of the Dairymen's League Association, and Dr. Blumenthal, acting head of the Division of Child Welfare of the New York City Department of Health, the women visited several city schools and health centers where milk is used.

The extension workers saw the work of the New York City Tuberculosis Association in the schools, and learned that through 70 milk stations five or six million quarts of milk a year are used by this association in its work with children alone.

A trip through the crowded streets of New York in city busses, which have right of way, was in itself a thrilling experience. The last visit was to Bronx Park, where the Dairymen's League has placed in the zoo a pure-bred Holstein cow. It has been estimated that 50 per cent of the city children have never seen a cow. One youngster, in fact, remarked at the sight of the cow's horns, "What are the handle bars for?"

It was felt that the conference broke all records for attendance and work accomplished. Comments from the floor were frank, pointed and constructive. Such varied topics as the value of mingling play judiciously with work, of making one's free time actually free, and of giving thought to the important details of personal appearance, vied in interest with those of planning schedules, of guiding group discussions to save time and reach the goal, and of suggesting new and much-needed projects for next year.—ALICE BLINN.

THE NEWEST SWEATER STYLE

Here is the sweater for the summer girl of 1923! A sleeveless tuxedo with rolled-back reveres and sleeve edges in checkered design of contrasting colors, it may be worn under a coat or with a separate waist and skirt when the weather gets warmer.

Canary yellow is a very popular shade this year. So is Lanvin green,

like the old reseda, but a little softer. Mountain Haze is a lovely, soft blue, with a good deal of lavender to it. And black and white appears in many odd combinations. There is also a "rainbow" yarn which shades gently from one pale shade to another.

Instructions for making the tuxedo sweater **E10** will be sent upon receipt of 12c in stamps.

The Valley of the Giants

(*Continued from page* 383)

pauvre Seth!" Buck sighed comically. "He will be just twenty-four hours late."

"You old he-fox!" Bryce murmured. "You wicked, wicked man!"

Buck Ogilvy lifted his lapel and sniffed luxuriously at his white carnation, the while a smile played around his humorous mouth. "Ah," he murmured; life's pretty sweet, isn't it!"

CHAPTER XXX

EVENTS followed each other with refreshing rapidity. While the crew of the big locomotive got up steam, Sexton and Jules Rondeau toiled at the loading of the discarded boiler and heavy castings aboard two flat-cars. This task was completed by noon, and the mogul backed up the main line past the switch into the Laguna Grande yards; whereupon the switch-engine kicked the two flat-cars and the wrecking-car out of the yard and down to the crossing, where the obstructions were promptly unloaded.

To Sexton's annoyance, Bryce Cardigan and Buck Ogilvy appeared on the scene, both very cheerful and lavish with advice as to the best method of expediting the job in hand. To Bryce's surprise Jules Rondeau appeared to take secret enjoyment of this good-natured chaffing.

(*Continued next week*)

Advertisement

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437
Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

Advertisement

In the Woman's World

League Holds Convention—Household Helps

"THE most powerful factors in the world to-day are clear ideas in the minds of energetic men and women of good will."

With this sentence meeting their eyes every time they turned a page of the official program, five hundred delegates of the National League of Women Voters met recently at their fourth annual convention, held this year in Des Moines, Iowa.

As a result, perhaps, of the inspiring influence of the "text," the entire atmosphere of the convention was one of friendly, cooperative enthusiasm, tempered with common sense, which enabled the delegates to accomplish much in the short time. In fact, so smoothly did all factors work together that one masculine observer said when it was all over, "To my mind, that is the strongest body of women in the United States.'

Under the chairmanship of Mrs. Edward Costigan, the Committee on Living Costs held a conference which included consideration of cooperation between producers and buyers, and which Miss Anna E. Richardson, dean of the Home Economics Division of Iowa State College, and Prof. E. D. Nouse, chief of the Agricultural Economics section, addressed.

Two resolutions, indicating both the concrete and the ideal aims of the League, were passed with enthusiasm. One set as a task for the coming year the mustering of a 75 per cent voting strength of American citizens. That our last presidential election brought out only 49 per cent of our entire body of voters was regarded as a serious indictment of American patriotism.

The other resolution pledged the members to work for world peace, and especially "to unite in every constructive effort toward permanent world organization for peace, without regard to party affiliations."

Plans for the year include especially the development of citizenship schools, open to any voter irrespective of sex, party or age, which will enable local communities to study both local and national affairs with the guidance of specialists in civic lines. These plans will be worked out by Miss Belle Sherwin, Chairman of the Committee on Efficiency in Government.

In closing, Maud Wood Park, President of the League, emphasized the desire of the officers to include within its membership women of all interests and political beliefs, fusing them all in a common platform of intelligent and active interest in good government. The League, according to Mrs. Park, is not primarily for the country woman or the city woman. It is for the American woman, wherever she lives or whatever her occupation. It is, in fact, "Everywoman's League."

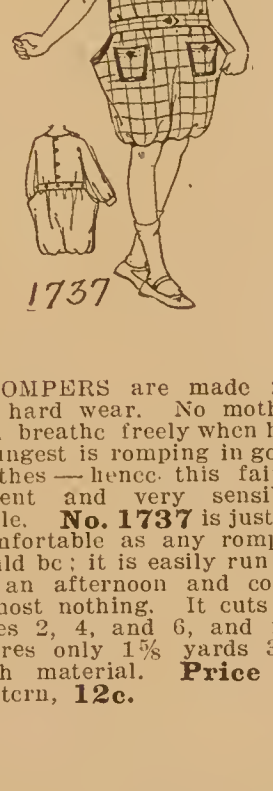
THEY SHOULD HAVE IT

A bill is in the Legislature designed to make the School of Home Economics of the New York State College a separate college. It is now a school or department under the College of Agriculture. Such separation would give the women an opportunity to work out courses of study based on the needs of home economics rather than of agriculture, and also enable the college to grant a degree in home economics.

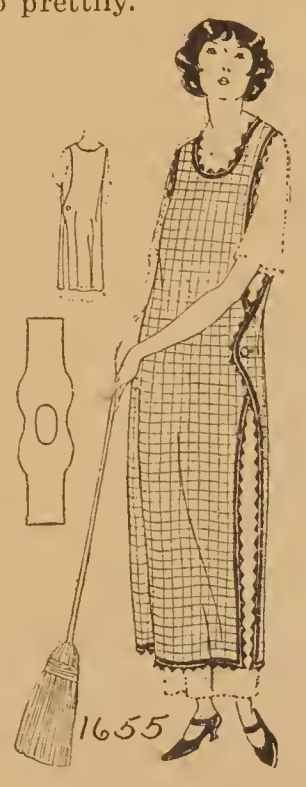
Both the College of Agriculture and the College of Home Economics, in this case, would have the same dean, with no additional administrative expense. We believe that the women have a right to a separate college. It is to be hoped that the bill will pass.

YOU WILL USE EACH OF THESE PATTERNS MANY TIMES

HOME-SEWING time comes with these warmer, longer days, when the children are still out of the way, at school, but when the spring weather turns one's thoughts to the simple, easy-to-make clothes. Children's rompers, dresses and suits are especially tempting because they can be made so easily, so cheaply and so prettily.



THE little girls' dress **No. 1647**, for instance, is one any mother would love to see her child wear. The dress is simple, yet the collar and cuffs, sash ends and pockets add distinctive touches. **No. 1647** cuts in sizes 6, 8, 10, 12 and 14 years. It requires 2 yards of 36-inch material, with ⅝ yard contrasting, for size 8. **Price** of pattern, **12c.**



ROMPERS are made for hard wear. No mother can breathe freely when her youngest is romping in good clothes — hence this fairly recent and very sensible style. **No. 1737** is just as comfortable as any romper could be; it is easily run up in an afternoon and costs almost nothing. It cuts in sizes 2, 4, and 6, and requires only 1⅝ yards 36-inch material. **Price** of pattern, **12c.**

AN apron which can be slipped on or off with equal ease, which has becoming lines and yet protects the dress completely is **No. 1655.** Cut out several at a time! The small picture shows how little troublesome cutting or sewing it requires. Each apron takes only 2¾ yards of a durable wash fabric, and it is prettier if trimmed with white or matching rickrack braid, of which 9 yards will be needed. **Price 12c.** (stamps are preferred; if coin is sent, wrap well).

To Order: Write your name, address, pattern numbers and sizes very clearly. Send your order, with the correct remittance, to Fashion Department, American Agriculturist, 461 4th Ave.

THE SUMMER CATALOGUE

The summer fashion book is ready.

For every-day dresses, for children's clothes for "best," for embroidery designs and for the pages of dressmaking helps which always are included in our catalogues, this year's fashion book is exceptionally fine.

Our usual low price—10c—is the cost but those who consult our book before ordering patterns are saved many times that amount.

Add 10c in stamps (or carefully wrapped coin) to your order. Address Fashion Department, American Agriculturist, 461 4th Ave.

Canada Offers "Last Chance" for Virgin Farms

THINK of what you could produce on a farm of virgin fertility, without the burden of high-acreage cost. Think of what 20-to-40 bushel wheat would mean to you under these conditions, and of dairying and stock raising on cheap pasture land. Land pays for itself in a few crops—no artificial fertilizer—no heavy investment. You have envied the farmer who got his start when land was cheap. Here's **your** chance, perhaps your last chance, for the same brand of prosperity.

Western Canada—Your Opportunity!

Western Canada is the farmer's land of opportunity. Thousands of settlers who started not many years ago with little or nothing, are today the owners of fine farms, with comfortable homes and barns, thoro'bred stock, dairy herds—all the marks of prosperity. Yet land is not dear—only $15 to $20 an acre for rich, virgin, prairie convenient to railways. Land is not dear in Western Canada—yet—**because there is so much of it.** But many settlers are expected in 1923, and now is your opportunity, before the best farms are taken. Get started. Taxes are **reduced, not raised,** on land brought under cultivation. On farm buildings, improvements, machinery, personal effects, automobile, etc., there is no tax at all. Canada wants workers—it wants its land farmed—and the farmers, through their municipal councils, have practical control of all local taxation.

Special Renter's Plan—Buy Out of Profits

To aid and encourage the honest worker with perhaps little capital, the Canadian Government has a "Renter's Plan", whereby one may work a new or improved farm—"Try it out" for several years if desired—and buy a farm of his own out of profits.

Thirty-Two Years to Pay

For the benefit of those wishing to buy land, a national non-profit sharing organization—the Canada Colonization Association—has been established, with head office at Winnipeg, and United States office at St. Paul. This Association offers selected land convenient to railways—much of it at $15 to $20 per acre—on very small cash payment; no further payment until third year; balance extended over thirty years, but purchaser may pay up and obtain title at any time, if desired. Interest six per cent on deferred payments.

Special Excursion Rates to Western Canada

In order that you may inspect the land—see for yourself — judge of its value and fertility — special excursion trips of inspection will leave United States points on the first and third Tuesday of each month. **Single fare plus $2 for the round trip,** available from all principal centers. Take advantage of these low railroad rates to inspect for yourself the opportunities which Western Canada has to offer you. Seeing is believing. The nearest Canadian Government Agency will give you all information. The men in charge are Government officials, interested only in the service of the prospective settler. **We help you find your opportunity.** Let us know something of your position and receive free book with maps and information how special railroad rates can be arranged for a trip of inspection. **Mail the coupon.**

Free Homesteads are still available in some localities.

Canada welcomes tourists—come and see our country for yourself. No Passports required.

ADDRESS AGENT: O. G. RUTLEDGE, Desk 56, 301 E. Genesee St., Syracuse, N. Y.

WESTERN CANADA — Farm Lands at Low Prices — The Wheat Belt of America

Please send me your free book on Canada, I am particularly interested in

( ) Western Canada ( ) Eastern Canada ( ) Renting
( ) Grain Growing ( ) Stock Raising ( ) Dairying
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P.O..... State.....

BLUE WHITE Luxite Diamond — If you can tell it from a Diamond Send it Back!

$1.97 C.O.D.

1 CARAT RINGS $1.97. Not one diamond in a thousand has the blue, dazzling brilliancy of "Luxito Diamonds." They're PERFECT; few diamonds are! Stand acid and all other tests. Only experts can tell you haven't paid $150.00. High prong Tiffany solitaire ring 14K gold S., guaranteed!

DON'T SEND A PENNY! Send only name, address and paper strip which fits end to end around finger. When ring comes deposit only $1.97 with postman. We pay postage! Money back if not delighted.

Free — Beautiful full-size BAR PIN, set with Luxite Diamonds, platinoid finish, free with ring.

GARFIELD IMPORTING CO., 3935 WASHINGTON BLVD., Dept. 120A, CHICAGO

30 Days' Free Trial — Select from 44 Styles, colors and sizes, famous Ranger bicycles. Delivered free on approval, express prepaid, at Factory Prices. Save $10 to $25.

12 Months to Pay if desired. Parents advance 1st deposit. Boys earn small payments.

Tires Wheels, equipment half usual prices. SEND NO MONEY—Write for marvelous prices and terms.

Mead Cycle Company Dept. P76 Chicago — Write to us today

GALLOWAY'S BIGGEST BARGAIN

Our cream separator, a tried, tested, high quality separator. Famous for close skimming, modern improvements, economical operation, at a price that makes the Galloway the world's greatest separator bargain that your money can buy.

CREAM CHECK PAYMENT PLAN

Makes it easy to own a Galloway. Our terms suit your pocketbook, our special offer permits you to try it before you buy it. Write today.

William Galloway Co., Dept. 343, Waterloo, Iowa

HOMESPUN TOBACCO — Chewing—5 lbs., $1.25; 10 lbs., $2.50; 20 lbs., $4.50. Smoking—5 lbs., $1.25; 10 lbs., $2.00; 20 lbs., $3.50. FARMERS' UNION MAYFIELD, KY.

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Mail your order now for one of these bargains.

AMERICAN AGRICULTURIST A-14

461 FOURTH AVE., NEW YORK CITY

Reviewing the Latest Eastern Markets

POTATO MARKET EASIER

FOLLOWING the excitement in the potato market in New York City, when Idaho Rurals were quoted as high as $2.50 cwt., sacked, delivered in uneven weight sacks, the demand decreased. Many buyers having loaded up, refused to buy and prices reacted. On the decline, Idahos were confirmed as low as $2.15 cwt. This stock is still getting most of the attention.

States in 150-lb. new sacks were quoted at $4 sack, delivered; a few higher. Demand limited. They were offered a little more freely.

The supplies in the yards were liberal, but with a steady demand prices were maintained. Maine Green Mountains sold from $4.50 to $5, bulk, 180 lbs.; States, 150 lbs., $3.25 @ 3.75; Idaho Rurals, $2.25 @ 2.40 cwt.; Long Islands, $6 @ 6.50 bulk, 180 lbs.; Floridas, $15 @ 17 bbl.

EGG RECEIPTS BELOW LAST YEAR

Weather conditions have apparently held back the anticipated heavy April production of eggs. Receipts at New York last week were greater than the week previous, but still considerably below the corresponding week last year. The total receipts since January 1, 1923, at New York, are still over 70,000 cases below last year in the same period.

The movement into public cold storage warehouses is far behind last year. The quantity on hand in New York storage houses April 19 was only 363,521 cases, compared with 517,357 cases at this time last year. The amount on hand at Chicago same date was less than half the amount at this time last year. What this means is that in the next few weeks the buying for storage purposes should be heavy, and if the late spring passes rapidly into warm weather, eggs of the best quality will be comparatively short in supply. As warmer weather comes the production will undoubtedly increase rapidly and may come up to all expectations in volume, as in 1912, when practically all the storage production came after April 10.

The consumptive demand has been much lighter the last two weeks, and is now running behind this time last year. Really fancy white or brown eggs have been in demand, but a very small proportion of the receipts came up to a high enough standard to bring the quotations for nearby extras. In the middle of last week the average run of State eggs sold at 31 to 34c.

BUTTER PRICES DROP

The long-delayed spring break in the butter market came last week. Prices on nearly all grades declined about 4c per lb. Whereas last week creamery extras were strong at 49c, this week the market is weak at 45c.

On April 19 there was on hand in cold storage at New York 856,517 lbs., as compared with 1,370,515 lbs. on the same date last year. The market continues in a healthy condition, in spite of the weak tendency, and from the point of view of the wholesale trade, the decline in prices is a normal adjustment to spring conditions.

CHEESE PRODUCTION INCREASES

In the N. Y. market the trade has been quiet, but the stocks on old cheese are steadily reducing. The big difference between the prices of old and new cheese at the present time should cause greater buying of the fresh cheese.

State whole milk flats, held, average run, white and colored, were quoted on April 19 at 27½ to 28c; flats, fresh, average run, at 21c.

There is reported to be very keen competition among buyers in up-State New York for May, June and summer make, and contracts are being made on the basis of New York average run quotations and some at substantial premiums over that quotation.

BROILERS DECLINING

With continually increasing receipts of spring broilers, both by express and freight, the price declined last week. On April 19 express broilers, Boston and nearby, colored, over 2 lbs. each, were quoted at 65c.; under 2 lbs. each, 55 @ 60c; white and brown Leghorns, large, 50 @ 55c; small, 40 @ 45c. Even at present prices, consumption of broilers is somewhat limited, and it is likely that prices will drop to a lower level in the next week or two.

NO SURPLUS OF CHOICE VEALS

In spite of the very liberal receipts of country-dressed calves at New York last week, there was no surplus of choice to fancy veals, and many sales of these were made at premiums above quotations. Following prices on country-dressed calves, April 19, per lb.: Choice, 16 @ 17c; good to prime, 13 @ 15c; poor to fair, 10 @ 12c; common, 6 @ 9c.

Demand was quite active for light calves toward the end of last week, and the price advanced $1 per cwt., with not nearly enough stock to go around. Generally sales of common to good were at $10 to $14.50 cwt., with one lot of choice calves selling at $15.

SLOW TRADE IN HAY

Although top grades of timothy hay at New York continued steady, the demand was slow for lower grades, which made up bulk of receipts. Small bales sell at $1 per ton less than large. Some shipments are coming by boat, and as these increase the market will probably be weaker on low-grade hay.

SOME FEEDS ADVANCE

The feed market, except for gluten feed, was fairly firm last week. Cottonseed meal, oil meal, meal and mill feeds, all advanced, but gluten feed declined $2.50 per ton. Largest increases were in oil meal and cottonseed meal. Buffalo market prices, April 18, carlots Buffalo rate basis, 100-lb. sacks, sight draft, follow:

Gluten feed, $37.55; Cottonseed meal, $46.50; Oil meal, $44; Dried brewers grains, $34; Standard spring bran, $33.75; Hard winter bran, $34.25; Standard spring middlings, $33.25; Choice flour middlings, $36; White hominy, $34.80. No. 2 Yellow corn per bushel, 91½c; No. 2 White oats, 52¾ @ 53c.

GRAINS CONTINUE ADVANCING

Grain prices continued to advance last week, and the speculative market was feverish. Cash quotations, April 19, follow:

Wheat, No. 2 red, $1.52; No. 2 hard winter, $1.41½; Corn, No. 2 yellow, $1.00½; No. 2 mixed, $1; Oats, No. 2 white, 57c; No. 3 white, 55½c; Rye, c. i. f. export, 97½c; Buckwheat, $1.86 @ 2.10, nominal.

Chicago—Wheat, No. 3 red, $1.33; No. 2 hard, $1.26 @ 1.26¾; Corn, No. 2 white, 81 @ 81¼c; No. 2 yellow, 81¼ @ 81½c; Oats, No. 2 white, 46¾ @ 47¾c; No. 3 white, 46 @ 46½c; Rye, 87c; Barley, 73c.

WOOL CONTINUES FIRM

The wool market continues firm, with no change in prices over those quoted here last week, but a tendency toward higher prices. At Boston there is a revival of interest in coarser grades and a broadening of the market. The situation at Boston has been complicated by the recent buying of Western wools at growers' prices by some of the large New England mills. The wholesale wool dealers held off from buying because they did not see an opportunity to make money, until the mills finally went direct to sources. American mills have been buying rather actively in the auction at Bradford, England, lately. There is no business being done in domestic wools of ordinary qualities at New York at present.

MAPLE PRODUCTS HIGHER

Maple syrup, which was quoted at around $1.60 to $1.70 per gal. in gallon tins in the New York commission houses until recently, is now quoted at $2 per gal. Sugar is quoted at 25 to 30c lb., and supply in market is very light. Very little Vermont syrup has been shipped as yet, and no reliable information is available as to the size of the Vermont crop, but it will be considerably less than last year.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on April 19:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	37½ @ 39½	......	......
Other hennery whites, extras	35 @ 36	......	......
Extra firsts	32½ @ 34	30 @ 31	29½
Firsts	31 @ 32	......	28 @ 28½
Gathered, whites, first to extra firsts	31 @ 34	......	......
Lower grades	28 @ 30	......	......
Hennery browns, extras	33 @ 35	......	......
Gathered browns and mixed colors, extras	29 @ 32	29 @ 30	......
Pullets No. 1	25 @ 27	......	......
Butter (cents per pound)			
Creamery (salted) high score	45 @ 45½	49 @ 50	......
Extra (92 score)	44½	47 @ 48	45½
State dairy (salted), finest	44¼ @ 44½	44 @ 45	......
Good to prime	43½ @ 44	36 @ 43	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$24 @ 25	$20 @ 21	$21 @ 22
Timothy No. 3	22 @ 23	......	18 @ 19
Timothy Sample	14 @ 17	......	......
Fancy light clover mixed	25 @ 26	......	21 @ 22
Alfalfa, second cutting	27 @ 29	......	......
Oat straw No. 1	13 @ 14	......	15½ @ 16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	26 @ 27	26 @ 27	29 @ 30
Fowls, leghorns and poor	22 @ 24	24 @ 25	27 @ 28
Chickens, leghorns	......	......	......
Roosters	16 @ 17	17 @ 18	19 @ 20
Live Stock (cents per pound)			
Calves, good to medium	11½ @ 13	11 @ 11½	......
Bulls, common to good	4 @ 4½	5 @ 6	......
Lambs, common to good	9 @ 12½	11½ @ 12	......
Sheep, common to good ewes	3½ @ 5½	6½ @ 7½	......
Hogs, Yorkers	9 @ 9¼	9¼	......

MOSS'S CHICKS
BEST IN THE WORLD

This season has proven to be the biggest season in our history. An outstanding factor is the great number of reorders from customers of past years, which speaks most convincingly of our High Quality and Superior Service.

You will receive the Healthiest, most robust chicks produced, for that is the kind we are famous for throughout the country. If you want fall layers order now, we are still in a position to ship immediately.

PURE BRED BABY CHICKS

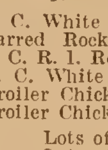
Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
Leghorns - Buff and Brown, Barred Rocks	$4.50	$8.50	$17.00
S. C. & R. C. R. I. Reds	$4.75	$9.00	$18.00
White Wyandottes, White Rocks, Buff Rocks, Anconas	$5.00	$10.00	$19.00
Black Minorcas, Buff Orpingtons, White Orpingtons	$5.50	$10.50	$21.00
Mixed Chicks or Broilers	$3.75	$6.75	$13.00
Light Brahmas	$8.75	$16.50	$30.00
Famous MOSS'S Jersey Black Giants	$11.00	$21.00	$40.00

June, July and August chicks 1 cent lower. By 500 or 1,000 of one variety, special discount allowed.

Hatching Eggs and Stock.—Whether your order is large or small, it will have the same careful attention. *Catalogue on request.* Immediate Delivery

ANTHONY H. MOSS, Morris Plains, New Jersey

30,000 Chicks weekly
Hatches due June 5, 12, 19 and 26


June, July and Aug.

Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:

S. C. White and Brown Leghorns .... 10c each
Barred Rocks .... 12c each
S. C. R. I. Reds and S. C. Black Minorcas .. 14c each
R. C. White Wyandottes .... 14c each
Broiler Chicks (Heavy Breeds) .... 9c each
Broiler Chicks (Light Breeds) .... 8c each

Lots of 500....... ½ cent per chick less
Lots of 1000...... 1 cent per chick less

100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.

FINE CATALOG FREE

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That are better, stronger, with plenty of "pep"; chicks easier to raise. That's the kind you have been looking for; that's the kind our system produces. It will pay you to learn how it is done. Write today for free new Bulletin C. ELDEN E. COOLEY, FRENCHTOWN, N. J.

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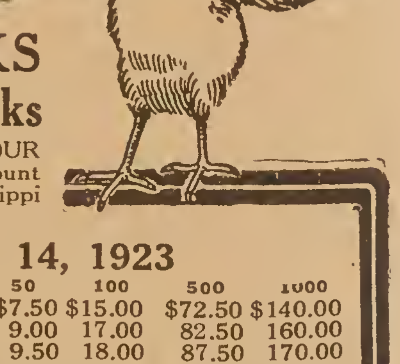
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Order them NOW. It means early-winter layers and—YOUR PROFIT. Remember our guarantee—safe delivery of full count with delivery postpaid anywhere in U. S. A., east of Mississippi River. Add 10c for special delivery on each hundred or less.

PRICE LIST—In Effect May 14, 1923

	25	50	100	500	1000
Wh., Blk. or Brn. Leghorns	$4.00	$7.50	$15.00	$72.50	$140.00
Barred Rocks	4.75	9.00	17.00	82.50	160.00
R. I. Reds	5.00	9.50	18.00	87.50	170.00
White Rocks or Anconas	5.25	10.00	19.00	92.50	180.00
Wh. Wyandottes or Blk. Minorcas	6.75	12.75	25.00	122.50	------
Mixed Chicks	3.50	6.50	12.00	57.50	------

Hatches every week during the season. Send money order, check or registered letter. Cannot ship C. O. D.

W. F. HILLPOT, Box 29, Frenchtown, N. J.
Member International Baby Chick Association
Life Member American Poultry Association

HILLPOT QUALITY CHICKS

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Smith's Standard Reg. U.S. Pat. Off.

Hatching every day in the week and every hour in the day. We are the world's largest producers.

THREE MILLION FOR 1923

Twelve popular breeds of best thorobred stock obtainable, moderately priced; also QUALITY chicks from heavy laying stock at small additional cost.

We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

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(Member International Baby Chick Association)

Prices —of— **BABY CHICKS** *for May Delivery*

White, Brown and Buff Leghorns, each..... 12c.
Barred and White Rocks, R. I. Reds, each..... 14c.
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White Wyandottes and Buff Orpingtons, each 16c.
Assorted Varieties, each..... 10c.

Sent prepaid parcel post. 90 per cent. live delivery guaranteed. Order direct from this ad or send for price list.

THE LANTZ HATCHERY, TIFFIN, OHIO
Established 1906

HILLPOT QUALITY CHICKS

Well-Bred From Record Layers. Each chick with its sterling, robust vitality is a living illustration of our quality idea.

Leghorns, Reds, Rocks, Wyandottes

Safe arrival of full count guaranteed anywhere within 1200 miles. Catalogue and Price List Free.

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BABY CHICKS

We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

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400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.

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Attractive Chick Investments

FROM SELECT PURE-BRED FLOCKS

WHITE and BROWN LEGHORNS, ANCONAS, 50, $7.50; 100, $14; 500, $65. BARRED ROCKS, REDS, and MINORCAS, 50, $8.50; 100, $16.50; 500, $75. Discount on orders of 1,000 or more. From extra select flocks $2 per 100 higher. Postpaid to your door. Full live count guaranteed. Bank Reference. Free Catalog. We know it will be to your advantage to get our catalog and full price list before making a final decisinn regarding your investment in Chicks this season. Send for it TODAY.

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S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

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Direct from large Modern 65-acre Poultry Farm. Result of ten years of careful breeding for heavy egg production. Winners at leading shows. M. A. C. Inspected and Approved. 100% live arrival guaranteed. Shipped Postpaid. Bank reference. Order at once at these prices or write for Catalog. Barron English White Leghorns, Brown Leghorns, and S. C. Anconas. Extra Select—50, $7.50; 100, $14; 500, $65; 1,000, $125. Select—50, $6.50; 100, $12.50; 500, $60; 1,000, $115.

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Chicks

BABY CHICKS
S. C. Rhode Island Reds, 15 cts.
Barred Rocks, ... 14 cts.
S. C. W. Leghorns, . . . 12 cts.
Mixed or Off Color Chicks, 9 cts.

These chicks are all hatched from free range stock. Safe delivery and satisfaction guaranteed. Descriptive booklet free. Chicks at the above prices to be delivered May and June. W. A. LAUVER, McALISTERVILLE, PA.

CHICKS PEDIGREED, EXHIBITION & SELECT GRADES from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.

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Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds

Pekin, Rouen and Indian Runner DUCKLINGS

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CHICKS From good selected heavy-laying flocks of Rocks, Reds, Wyandottes, Anconas, Leghorns, Minoreas. [illegible] prices. Postpaid. Full live delivery guaranteed. [illegible]alog free. RELIABLE HATCHERY, [illegible]VILLE, PA.

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The big, fluffy, lively kind—THE KIND THAT LIVE AND GROW—FROM PERSONALLY SUPERVISED and CULLED FREE RANGE FARM FLOCKS of heavy laying strains produced in one of the most modern hatcheries in the country.

BARRED and WHITE ROCKS, REDS, ANCONAS, MINORCAS, 50, $8; 100, $15; 500, $72.50. BUFF ORPINGTONS and WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. WHITE and BROWN LEGHORNS, 50, $6.50; 100, $12; 500, $60. Postpaid and full live delivery guaranteed. Bank Reference. Order NOW direct from this ad and get them when you want them. Free circular. NORWALK CHICK HATCHERY, Box B6, Norwalk, Ohio. Only 15 hours from New York City.

BABY CHICKS

Price List	Prepaid to you	Pure bred Stock 100	50	25
White and Brown Leghorns		$12.00	$6.50	$3.50
Buff and Black Leghorns		12.00	6.50	3.50
Anconas		13.00	7.00	3.75
Rhode Island Reds		14.50	7.75	4.00
Barred Rocks		14.50	7.75	4.00
Single Comb Black Minorcas		14.50	7.75	4.00
Buff and White Rocks		15.00	8.00	4.25
White and Silver Laced Wyandottes		16.00	8.50	4.50
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All absolutely first class, pure bred stock. Prompt shipments made. Mail orders to

J. KREJCI, 2165 East 86th Street, Cleveland, Ohio

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Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

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S. C. W. LEGHORNS

S. C. Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

BROOKSIDE POULTRY FARM

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BABY CHICKS

From carefully selected to lay flocks in BARRED, WHITE and BUFF ROCKS, WHITE and GOLDEN WYANDOTTES, BLACK MINORCAS, BUFF ORPINGTONS, S. C. and R. C. REDS, ANCONAS, WHITE, BROWN, BLACK and BUFF LEGHORNS, and Assorted for Broilers. Produced by men of many years' experience who know how to hatch good, strong, healthy Chicks. Fair prices. Postpaid, full live delivery guaranteed. Get our catalog and full particulars. Bank Reference. NEW WASHINGTON HATCHERY, Box A, New Washington, Ohio.

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Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off.

Free catalog. Member I. B. C. A.

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Hatched from standard, pure bred, free range stock by long experienced operators. Twelve leading varieties, $10 per 100, up. Shipped Postpaid. Safe delivery guaranteed. Illustrated catalog free.

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Can furnish Pure Bred S. C. White Leghorns from Heavy Egg Layers, headed by Certified cockerels. Pedigreed chicks from Certified stock, also eight-week old pullets and up.

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WHITE Leghorn baby chicks, from pedigreed, heavy laying stock of business poultrymen. Hatched from eggs laid by mature hens mated to sons of 200-egg layers or better. High in productive value, reasonable in price.

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Same vigorous, business quality, selected from early hatches. Order now for early laying.

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Capacity 150,000 healthy chicks at a setting

Fully guaranteed, direct from Trapnested, Pedigreed Tom Barron and Hollywood Imported White Leghorns. World's champion layers. Not just a few 300-egg birds, but a high flock average egg production—that's where you make **your profit.** Hatched in the largest and finest Hatchery in Michigan, by those who know how. **Bargain prices if you order now.** We can also **save you money** on Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds and White Wyandottes. **Satisfaction guaranteed or your money back.**

Handsome, complete catalog free for the asking. Write for it today.

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JERSEY BLACK GIANTS

Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

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By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.

HUBER'S RELIABLE HATCHERY North High St., FOSTORIA, OHIO

CHICKS—$11.60 per 100 and UP

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

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Barred Rocks, R. & S. C. Reds	$7.50	$14.00	$41.00	$68.00
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Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW DIRECT FROM THIS AD and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free. Write for reduced prices for June.

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1000 orders at same rate as 500. Get our 1923 Catalog. Reference, Athens National Bank.

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Strong, vigorous, well-hatched Chicks from heavy laying flocks of S. C. White, Brown and Buff Leghorns, Rhode Island Reds, White Wyandottes, White Rocks, Barred Rocks, Buff Orpingtons and Anconas. 100% live delivery guaranteed. Postpaid. Catalog giving particulars, also price list on request. Bank Ref.

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Strong healthy chicks from heavy layers. S. C. Barron Eng. Whites, Browns, Anconas, 13c. We sell Class A chicks only. 100% live. 10% down. Postpaid. Bank ref. Catalog free. Order now.

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Single Comb Reds, Anconas, White and Brown Leghorns; from pure-bred, free range breeders; that are bred for color, vigor and high egg production. Circular.

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EGGS from thorough-bred light Brahma Columbian and White Wyandotte, Silver Campine, 10c. each; Rocks, Reds, $13 per 100; Leghorns, $15 per 100. S. G. BEALER, Coopersburg, Pa.

DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.

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Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 16c. each; White Wyandottes, 18c. each; White, Brown, Buff Leghorns, 14c. each; broilers, 10c. each. Pekin Ducklings, 30c. each. Safe delivery guaranteed by prepaid parcel post

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1923 Chicks Wh., Br., and Buff Leghorns. 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks. Minorcas. Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.

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Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

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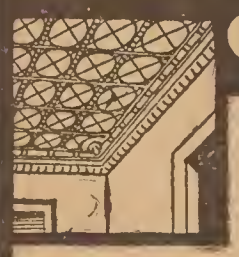

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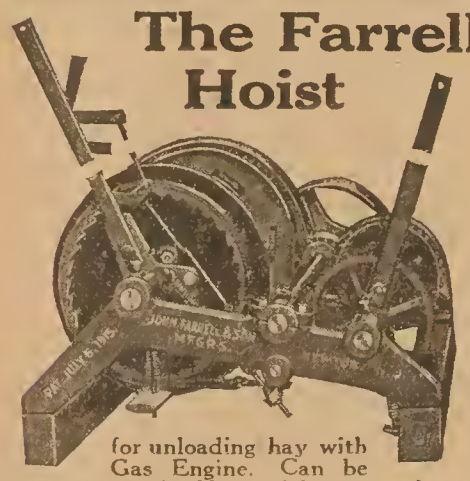

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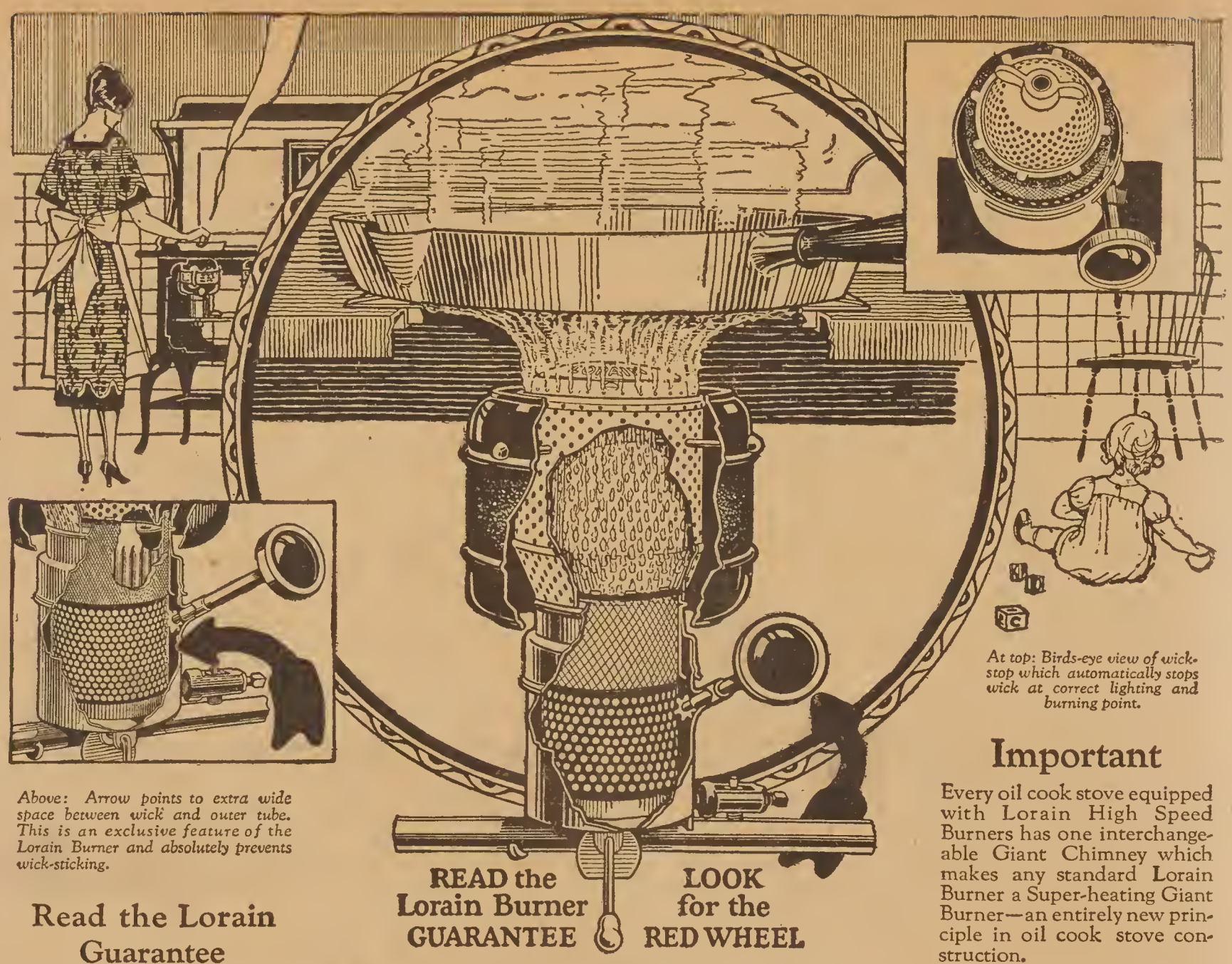

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At top: Birds-eye view of wick-stop which automatically stops wick at correct lighting and burning point.

READ the Lorain Burner GUARANTEE

LOOK for the RED WHEEL

Read the Lorain Guarantee

BECAUSE the short chimney oil stove burner produces an intense flame which strikes directly on the bottom of the cooking utensil, the heat generated has, in the past, caused the early destruction of its vital part, the inner combustion tube.

This fault has been *completely* eliminated in the Lorain High Speed Oil Burner by making the inner combustion tube of "Vesuvius Metal" which is not affected by the destructive action of this intense heat.

Therefore, American Stove Company now gives the following *unconditional* guarantee with each Lorain Oil Burner:

Guarantee Should the inner combustion tube of the Lorain High Speed Oil Burner burn out within 10 years from date of purchase, replacement will be made entirely free of charge.

YOU'LL like the Lorain High Speed Oil Burner because it has given perfect satisfaction in thousands of homes for more than ten years.

It gives a clean, odorless, blue flame of great intensity. This flame comes in direct contact with the cooking utensil, *not* ten inches from it.

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Don't buy an oil cook stove until you've seen one of the many famous makes equipped with Lorain Burners. If your nearest dealer can't supply you, write us immediately.

Important

Every oil cook stove equipped with Lorain High Speed Burners has one interchangeable Giant Chimney which makes any standard Lorain Burner a Super-heating Giant Burner—an entirely new principle in oil cook stove construction.

Additional Features

Positive Wick-Stop stops Wick at Correct Lighting and Burning Point

"Boil-Overs" Can't Reach Wick

Wick Seldom Requires Trimming

The Wick Won't Stick

Easy to Re-Wick

Many famous makes of Oil Cook Stoves are now equipped with the Lorain High Speed Burner, including

DANGLER—Dangler Stove Co. Div., Cleveland, Ohio
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HIGH SPEED
OIL BURNER

AMERICAN STOVE COMPANY, ST. LOUIS, MO.

Sole Manufacturers of Gas Ranges Equipped with the Lorain Oven Heat Regulator
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ASK YOUR GROCER FOR

WHITE HOUSE
COFFEE

1-3-5 lb CARTONS ONLY

The best high grade coffee sold by anybody-anywhere

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Guernseys—Why I Keep Them By H. E. Babcock

Look to Your Taxes

"It Is Time That Farmers Got Together To Protect Their Interests"

By H. C. McKENZIE

THIS fiscal year the State government expenditures will amount to $132,000,000; for next year they have been estimated at $150,000,000; and for the year following at $200,000,000. This means higher direct State taxes. The increase will have to be paid by a direct tax on tangible property—this means chiefly real estate. If the Legislature spends more money, real estate will have it to pay; there is twice as much other property in the State that is not reached by this tax; why should the whole load be put upon one-third of the property?

Why should not part of it be raised by a surtax on incomes as is done in Wisconsin? This would be a great advance in several directions: First, it would distribute the tax more equitably, and second, there would be more people interested in economy by the Legislature. As the law now stands, a larger State budget does not affect the income tax rate on corporations or individuals.

If part of the increase were to be raised by a surtax on income, every business concern and every individual liable to a State income tax would at once be vitally interested. Were a proposition to spend $150,000,000 or $200,000,000 to come up in the Legislature, immediately they would protest and the pressure on the Legislature for economy would be multiplied many fold. As it stands now, only the owners of tangible property are affected by the direct tax, and the farmer and the small-house owner are silent and without any organized means of combatting extravagance.

As the law now stands, not only will any addition to the State budget be made up by a direct levy on tangible property, but, in addition, the $20,000,000 of back taxes from which the banks of the State have recently been freed by the Richmond decision of the United States Supreme Court will have to be charged back to the several districts and piled upon the other item. A new tax measure will have to be enacted to tax the banks in the future, and several bills have been introduced in the Legislature for that purpose. The one favored by New York City, and which is being pushed before the Legislature, is the Walker Bill, which provides for a tax of 2 per cent on the value of the bank shares. A hearing on this bill was held in the Cities Room at the Capitol on April 11. There was a room full of representatives of bankers, of banking associations, of New York City, and of business organizations. Just one lone farmer, who got there by accident.

This bill provides a tax of 2 per cent on the bank shares. The banks claim that under it they will be taxed in undue proportion to others. It is pertinent to inquire how this compares with the taxes that the farmers are paying. A comparison of the proportion of gross income, of different kinds of business, absorbed in taxes shows that the farmer was at the head of the list; a few of the items are as follows:

Farming	$1.83
Non-metal mines (very small number)	1.43
Public utilities	1.31
Textiles	.19
Clothing manufacturing	.08
Bankers	.42

This means that of every hundred dollars a farmer takes in he pays out for taxes $1.83, compared to 42 cents which the banker pays.

Figuring another way, we come to the same conclusion, that the farmer is paying more than his fair share. Taking two typical rural counties, St. Lawrence and Delaware, we find that in St. Lawrence the average tax rate on the assessed valuation is $.0334. Adjusted to the equalized valuation, or actual value, it is $.0237. For Delaware County the average rate on assessed valuation is $.0369, and for the actual value $.0217. All the Walker Bill asks the bankers to pay is $.02, and still they claim they would be overtaxed as compared with others.

It should further be remembered that after a farmer has paid his direct State and local taxes, he still has a State income tax to pay. But the Federal law has been so manipulated that the owner of bank stock is relieved from it. It might further be observed that the farmer is taxed on all his earning assets: his farm, buildings, stock, machinery, and equipment. Nine-tenths of the bank's earnings come from the deposits WHICH ARE NOT TAXED. If the farmer was put on all fours with the banker, the banker would be taxed on HIS earning assets, which includes the deposits.

And yet one of the bankers came to Albany and complained because in a certain bank a 2 per cent tax on the shares would amount to a 10 per cent tax of the net income. He made this complaint after his organization had spent a year at Washington making it impossible to adequately tax them on their net income, and when, at the same time, not 10 per cent, but 30 per cent of the net income of all the real estate in the State of New York is absorbed in taxes, according to a statement made by Governor Miller in one of his messages to the Legislature.

It is time that the farmer learned from the example of these other groups to cooperate for the protection of their interests. When they do, the banks will not be able to charge back to the owners of tangible property $20,000,000 of back taxes and the extravagant expenditures of the Legislature will not all be loaded on the same shoulders.

Farmers' Hours

8,640,000 Times A Year—100 Yanks For A Cent!

By A. H. DeGRAFF

IN the editorial of the April 14 American Agriculturist it is not mentioned what sort of farmer Mr. Arthur Pound interviewed, hence it is impossible to compare his working hours with those of others in similar types of farming. However, it is very likely that some farmers do not work more than seven hours a day on the average. My own experience has been almost entirely with a general farm, on which dairying was one of the chief sources of income, and we worked about eleven hours a day most of the year.

I always kept two men the year round, as I considered it necessary to keep a man through the winter if one was to have him in the summer, and I myself did not have to do much work in the winter on that account. Our day was about as follows: start chores at five, one hour for breakfast, work until noon, one hour for dinner, and work until six. Sometimes the work went over a little, but we figured on getting done at six. Of this time two and a half to three hours were spent in doing chores until I got a milking machine, and then one man spent most of ten hours in the lot with the four-horse team during plowing and fitting, and the other did all the milking in the same time that it formerly took the three of us.

Many of my neighbors worked somewhat longer hours. Not many of them worked less. Now there are few hired men in the country, and the operators of the farms work longer hours. Many farmers put in their time at puttering jobs between the really busy seasons, owing to poor planning of the farming operations. I always planned to have productive work for every day of the year. I raised early and late potatoes and some cabbage. This made more fitting, cultivation, and planting in the spring and summer, spraying in the early summer, digging of early potatoes in the late summer, in a time that would otherwise have been slack between harvesting and silo filling, digging of late potatoes after silo filling, and cutting of cabbage last of all. I also was usually able to slide in some two to three months of teaming on the road every summer.

In the winter I hauled milk to fill out the time. I believe that the more careful planning of farming, to utilize the time to the best advantage, together with the use of tractors or four-horse tools in order to increase the work performed per man, offers the greatest possibilities of decreasing the cost of production which we have.

Incidentally, I might mention that I have figured out the price received for milking cows. One pulls teats on an average of 8,640,000 times a year. At the average rate of payment of farm labor, one gives some 100 yanks for a cent. It is not the long hours on the farm that drive workers away; it is the low rate per hour. The only way we can improve the profit on the farm is not to increase production, but to decrease costs and to increase prices. To decrease costs we must so plan our work that there will be *profitable* or at least *productive* work all of every work day in the year, preferably both for horses and men. You don't get paid for loafing nor for puttering around to get your time in.

My hours did not vary from early spring to late in the fall, and my men worked about ten hours a day the other three and a half to four months. Most of the farmers have more variation than that, however, working longer hours in the busy season and shorter hours in the slack times.

Hod carriers in some of our Eastern cities are now holding up all building operations while they strike for $1 an hour. At this rate my men would earn only $70 a week in the summer and $64 a week in the winter, or an average of about $3,544 a year. I really cannot see any particular reason why they should not get the same wages as hod carriers. The work is about as hard, and takes infinitely more brains. And yet people wonder what is the matter with farming!

The only way to have a friend is to be one.—RALPH WALDO EMERSON.

American Agriculturist

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Guernseys—Why I Keep Them

One Reason Is The Housewife As She Appears At 6 A.M.

By H. E. BABCOCK

I WELL remember the late E. R. Zimmer saying to me not so very long ago as we walked down the street in Syracuse: "Why is it, Babcock, that you take so much pride in your Guernseys, and yet when you write about cows it's always about your Holsteins?" Bill Davis, secretary of the State Guernsey Club, was along, and Zimmer's question placed me in a somewhat embarrassing position. I don't recall what I answered, but now I shall square myself, anyway, by writing about Guernsey cows as fully and with as much enthusiasm as my editor will permit.

The truth of the matter is that I love a good cow, no matter what her color. But next to the pleasure of owning and handling good cows, and even of more fundamental importance, comes the economic necessity of making them pay; and I can truthfully say that good cows of at least three dairy breeds have both given me pleasure and paid in my herds.

Why I Chose the Guernsey

The Guernsey, however, has her own individual and peculiar qualities, and something of her appeal to the dairyman I hope to bring out in this article.

It is necessary for me to draw mainly on my personal experiences and observation; I hope that my readers will not draw the conclusion that because I do this I am unduly impressed with the importance of my own ideas. Rather, I want to give as true a reflection as I can of the reasons which led me to invest money in the Guernsey breed, and of the experiences I have had with it.

I must go back to 1904 and 1905, my last two years in high school, when I left the farm between four and five o'clock in the morning and peddled milk around a small village before going to school. Then it was that I became acquainted with the housewife—the housewife as she appears at six in the morning, minus some of the embellishments of the afternoon, with her temper on edge and a biting sarcasm at her command. Then it was that the importance of the cream line on a bottle of milk was impressed on me; it never will be forgotten. Then, too, I learned of the real appreciation people have for a golden yellow color in milk.

It's Creamier—It's Golden Yellow

When, fifteen years later, I decided to embark on an enterprise to furnish consumers with milk direct from my farm, my mind naturally reverted to those early experiences, and I chose the Guernsey because I knew with her, as with no other breed, I could build a high-class retail milk business.

The milk of the Guernsey cow is distinguished by its creaminess and by its golden yellow color. This golden yellow color is distinctly a breed characteristic. Not only does it appear in the milk of the Guernsey, but in her hide and skin secretions as well.

The idea is also carried on in the color of the typical Guernsey, which is always light or dark fawn and white, and which, to meet the highest ideals, has a fawn-colored nose and tongue, in distinct contrast to the black nose and tongue of the Jersey.

In her native home, the Guernsey has been closely associated with humans. As a result she is especially gentle.

The Guernsey cow originated on the Isle of Guernsey, a small island about twenty-four miles square, lying in the English Channel. Neighboring to it is the Isle of Jersey, from which originated the Jersey cow.

The Home of the Guernsey

The agriculture of both islands has been developed with reference to the London market, and on the Isle of Guernsey truck crops and greenhouses have held a more prominent place in the minds of the farmers than the Guernsey cow.

This has resulted in the development of the Guernsey as a side issue, agriculturally speaking, and as a family cow. The island is so small that the cows are staked out instead of pastured, and a great deal of the time they are fed on the surplus roughage resulting from garden operations. As a result, the Guernsey cow has been bred gentle, and is able to adapt herself to a large consumption of farm-raised roughage.

These characteristics—the tractability and intelligence of Guernsey animals, both cows and bulls—immediately strike one who has handled the larger and rougher Holsteins. The Guernsey's ability to give a satisfactory milk production on roughage, with little or no grain, is another outstanding quality, and it makes her, under certain conditions, a very economical producer.

The importation of Guernseys into America began in 1818, and scattered shipments continued up until 1905. From then until the present time an average of about six hundred animals a year has been imported into the States. This American market has aroused the farmer on the Isle to a greater appreciation of his cows, and he undoubtedly takes better care of them, since he is sure of selling good animals to America.

In America, as is the case with all pure-bred animals, the interests of the Guernsey are looked after by an association of breeders, known as the American Guernsey Cattle Club. This organization has its headquarters in Peterboro, N. H., where it maintains registers of all pure-bred Guernseys and conducts a so-called advanced registry, in which is kept a record of animals which, under certain official conditions, make production records.

An Association of Breeders

Life membership in the American Guernsey Cattle Club costs $50, and is only granted to men who are recommended by existing members of the club and who receive the practically unanimous support of the membership. Registration of pure-bred Guernseys costs $2, and records of transfer of ownership cost $2.50. The money collected from membership, registrations, transfers, and other incidental fees is used to support the association and to put out propaganda and advertising for the advancement of the Guernsey breed.

Members of the association meet annually in May and elect officers and a board of directors. Between annual meetings the affairs of the association are conducted by the directors and officers.

The Practical Merits of the Breed

Before I discuss further the distinguishing characteristics of the Guernsey, or even allude to some of the handicaps with which the owner of a herd of Guernsey cattle finds himself confronted, I must again refer to my statement at the beginning of this article. I am setting down here only my own experiences and observations; these may well be challenged by others with wider experience.

To begin with, the Guernsey breed has a distinct advantage over every other dairy breed in the natural golden color of the milk

(*Continued on page* 402)

Editorial Page of the American Agriculturist

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A Good Word For the Guernseys

WE take pleasure in this issue of calling your special attention to the Guernsey cow. We are playing no favorites and expect to talk about the other breeds later, but, whether or not the Guernsey is your favorite, we know you will enjoy Mr. Babcock's article, which we are featuring this time, and also the other articles, pictures, and advertisements of a most wonderful dairy breed.

The question of which is the best breed is old and, in our opinion, too much argued, for, after all, it is not so much the question of the breed as it is of the man behind the cow. Every breed has its peculiar characteristics; every dairyman knows what those characteristics are, and can, therefore, determine which appeals to him the most. If he gets the breed that pleases him, that is the one he should have, whether it is Guernsey, Jersey, Holstein, or Ayrshire.

Do Not Hoard Sugar

WE have tried to keep sensational and radical writing out of American Agriculturist, but every once in a while something happens that makes it difficult to keep from breaking forth into strong language and from calling a spade a spade. For instance, last winter we started two or three times to express some rather emphatic opinions about so much coal going to Canada when our own folks were suffering so on this side, but we finally did not say anything because, after all, it was more of a city problem than a country one, and because we were not sure of all the facts. Now there comes another situation that does affect farmers, and this time we are not going to keep quiet.

The present situation in the sugar market is one of the most abominable steals that has been made in this country in years. In spite of the fact that we are supposed to have laws that keep scoundrels within bounds, and in spite of the fact that all the authorities agree that there is no real shortage of sugar, the operators and speculators have succeeded in forcing the price of this necessity of life to twice what it should be, stealing the pennies from the tables of a hundred million people. The farmers who produced the sugar have not profited at all by the increased price.

Inasmuch as the authorities do not seem to be able to cope with the situation, the people themselves will have to handle it by a judicious use of the great law of supply and demand. This means that all of us should buy as little sugar as we possibly can until the price gets back to where it should be, and that under no circumstances should we at the present time buy any large quantity for future use.

Marketing High-Testing Milk

CALLING special attention in this issue to the Guernsey cow brings to mind again the old argument whether there is more profit in a breed that produces a large volume of milk low in butterfat or one giving a smaller volume of milk but with a higher test.

Many are the heated arguments we have listened to in attending the meetings of the Dairymen's League Board of Directors between the advocates of the Jersey and Guernsey on one side and the Holstein and Ayrshire directors on the other. It was the claim of the Guernsey and Jersey men, and without doubt they were right, that the butterfat in high-testing milk sold under the league plan for a too low price. Those on the other side usually agreed, but pointed out the difficulty of raising the butterfat price to the dealer until the consumer was educated to pay more for this high-quality milk. Shortly after the milk strike of 1916, the league did raise the price of butterfat from three to four cents a point, but even at four cents a point there is little profit in the production of high-testing milk.

Mr. Babcock, in the feature article this time, shows how he has solved the problem for himself, by educating the consumer to the advantages of milk containing plenty of butterfat, so that the consumer is willing to pay an extra price for it.

Laws to Protect Women and Children

WE were sorry to hear the decision of the United States Supreme Court that the Minimum Wage Law is unconstitutional. Such a law exists in the District of Columbia and in several States, and was being given consideration for passage in several more. It establishes a minimum wage rate for women and children, and represents one more step in the progress which labor unions and welfare workers have made in the long fight to protect women and children in industry.

All that one needs to prove that a bitter fight has been necessary to improve working conditions for women and children is to read about conditions in industry that existed even in this civilized country less than one hundred years ago. Speaking of this period, Dr. Richard T. Ely says: "Windows were nailed down and the operatives deprived of fresh air. . . . Women and children were urged on by the use of a cowhide, and an instance is given of a little girl eleven years of age whose leg was broken by a billet of wood. The wages were small; a woman's earnings in this period were estimated at less than sixty dollars a year. The working day in winter varied from twelve to fifteen hours."

The Supreme Court, in handing down its decision, said that the Minimum Wage Law discriminates in favor of women, and that discrimination is unconstitutional; and that, furthermore, women are now on an equal political basis with men and do not need special legislation.

There is, of course, no danger that conditions in America will become again as bad as Dr. Ely describes, but women are the mothers of the race, and the whole future of civilization depends upon their physical, mental, and moral welfare, and upon the welfare of their children. Therefore, they do need special protection, and no reasonable legislation giving that protection to both farm and city women and children is out of place.

Another act that is before the New York State Legislature of special interest to women is the Sheppard-Towner Maternity Bill. The Sheppard-Towner Act is a Federal law which provides for Federal funds to those States which raise duplicate funds to help reduce the deaths of mothers in childbirth and their babies. Twenty-two States have already passed an enabling act to raise funds in cooperation with the Federal Government for this purpose.

The United States stands seventeenth in the list of civilized countries in its maternity death rate and sixth in infancy mortality. Two-thirds of the women who lose their lives through childbirth, and one-half of the babies who now die in the first year of life, could be saved, physicians estimate, if women had proper advice and care. Under the proposed legislation, the service to mothers would be furnished through the State Department of Health and the local health authorities.

Unfortunately, the bill has been defeated in the New York State Senate. It can be passed next year if the women insist on it.

A Curious Idea

WE have often wondered why the great majority of people seem to think that the editor's biggest job is to fill up space. As a matter of fact, each inch of space in any good magazine is worth many dollars, and it takes considerable thought to get material in that space which will justify the high cost of printing it. We have to laugh sometimes when some one thinks he is conferring a real favor upon us by handing us something "to fill up space." For instance, the editorial office of American Agriculturist receives each month one hundred or more well-written articles, most of them of considerable length, for which pay is expected. These articles are all carefully read, and a very few of the best, probably less than 5 per cent, are bought for publication. The mere task of reading them takes a great deal of time.

Most first-class publications also have a regular list of contributors who are paid by the month, or issue rather, than for each article. When the material from these writers comes in, it is all carefully read and often cut down to fit space requirements. Then, in addition to the material for which pay is expected, we receive several hundred articles every week, propaganda and publicity for one cause or another, that the writers hope we will publish to further the cause they are advocating. Very little of such material is printed in American Agriculturist, and none of it except that which is rewritten and reedited to make it more interesting and valuable to our own particular class of readers.

The difference between a good publication and a poor one is largely due to the care taken in the editorial offices to weed out the great mass of poor stuff and select from it a little material of high quality which is particularly adapted to the needs and the interest of the people of that particular magazine. We are always glad to give consideration to articles and to new ideas, but we have often wished, when some of our friends handed us something, that they could be in our office in the morning and watch the armfuls of mail coming from hundreds of writers, all having the same idea of helping "to fill up space."

The Abiding Place of Little Children

American Agriculturist Radio Address on Home Making and Home Bureaus

By MRS. A. E. BRIGDEN

IN these days of unrest and dissatisfaction, too much insistence cannot be put on the value of the home and of the home-maker's place in the scheme of life, in the community and in the nation. The finest palace filled with every luxury does not constitute the home, while a tent and unselfish love is the abiding place of happiness and a safe place for little children. As never before, home making needs to be dignified as a profession, and it will be only when the women themselves realize the importance of their own calling.

Eighty-five per cent of the girls in our schools will follow the occupation of making a home. Ninety per cent of men's earnings is spent by women dependent upon them, most of whom have never had any real training on how to spend money advantageously. Ninety per cent of legacies left to women is lost to them in seven years because they have never been trained in business habits. It seems a tremendous economic oversight that remedies have not been provided for situations like these upon which the success of the home is dependent.

Have Brought the Home Bureaus Into Being

These are some of the problems of concern, not only to those living on the farms, but to women wherever they may be, and it is problems such as these that first brought the Home Bureaus into being. The Home Bureau is not necessarily a rural organization, for it is concerned with the problems of home making which are fundamentally the same in both city and country. There are already three splendid city Home Bureaus in New York State, one of which is the largest organization of its kind in the United States. The Home Bureau is the partner of the Farm Bureau, and, being composed of women, it surely will never be a "silent partner." Indeed, as time goes on, one may expect to hear its voice more and more, calling attention to the importance of home making and its problems, the greatest profession in all the world.

Farming as a business is very intimately related to the farm home. No other business has such a peculiar relation to the home life. A man in the city may have his business in the most undesirable surroundings, but still have his home where life is full and rich. But on the farm the barn and the home are side by side, and cannot be separated. Hence, since the home cannot be moved to where fit living conditions exist, then such conditions must be brought to the farm home where they are not already present.

The Farm Home and the Farm Business

The thing of supreme importance to the welfare of the farm home, and therefore to the nation, is that farming be made a paying business. One class in society cannot expect to work eight hours a day at a living wage when another and important group work fourteen to sixteen hours for a bare existence at a business that requires skill and training, especially when that business is so closely related to the very future of our nation's existence. It is fundamental that farming be made to pay if the farm home is to be a permanent one and the right sort of people kept on the farm, for it is from the farm home of the past that the cities and the nation have drawn some of their best blood.

If living conditions on the farm are not such to make the farm a desirable place to give farm children their preparation for life, farm women are pledged through organizations like the Home Brueau to see to it, as far as it lies in their power, that those conditions are changed. So wonderful is the contribution of the open country to living, however, that, in spite of all handicaps, it must still remain the best place for a real home and the best place to rear children.

The Primary Interest of the Home Bureau

In the Home Bureaus, as well as the Farm Bureaus, the primary interest is to bring about a better economic situation in rural life, for the first problem in raising the standard of life of any people is to give those people adequate pay for the service they render. But the Home Bureaus go beyond the economic situation to those problems of country life like the rural church, the rural school, rural health conditions, rural libraries, and rural recreation. Most of these problems have already been solved in the city; they yet remain to be done in most country communities, and the rural women, through organization, are just beginning to set their shoulders to the task.

Not the least of the problems of rural women is that of isolation and loneliness, and the Home Bureau has helped to bring them closer to each other. Already in its early history it has developed initiative, latent talent for leaderships, and afforded opportunity for self-expression and a chance to voice efficiently opinions where such opportunity is desirable.

Three Years of Effort for Better Schools

The Home Bureau, through its representation on the Committee of Twenty-one, has worked for three years to bring about plans for the betterment of rural schools. The bureaus have rendered valuable service on this committee and are satisfied that there is no reason why a child in the country should not have the same educational facilities as the child in the city. For forty years the betterment of rural schools in New York State has been under consideration without any very special accomplishments. The women on the farms are insisting to-day that there should be no longer delay. They are urging with a greater persistence than any other farm organization that the Downing-Hutchinson Bill, containing the suggestions for rural-school improvement made by the Committee of Twenty-one, shall be passed immediately.

Possibly all that I have tried to say about the home and what the Home Bureau is trying to do for it is summed up in the Home Bureau creed, which I wish might be hung on the wall of every home maker. This Home Bureau creed is: "To develop the highest ideals of home and community life; to count children the most important of crops; to so nourish them that their bodies may be strong, their minds clear, their spirits happy, and their characters generous. To place service above comfort, to let charity supplant hatred, to let loyalty to high purpose silence discordant notes, to be discouraged never, to believe one's community may become the best of communities, and to work together for a more abundant home and community life."

This creed visualizes some of the ambitions of the State Federation of Home Bureaus, which is simply a union of home makers, pledged to the enrichment of home life and to the betterment of that larger housekeeping which reflects itself in the home of the community. It has been said that the only difference between the difficult and the impossible is that the impossible takes a little more time. Then I suppose that the best thing that women can do as a factor in bettering living conditions on the farm or in the city is to attempt the impossible and work together to bring in the golden age when every home will be developed "into an institution economically sound, mechanically convenient, physically healthful, morally wholesome, mentally stimulating, spiritually inspiring, and socially responsible—a center of unselfish love."

If You Like These Talks, Write Us

IF you like to read something that gets right down to where you live, you will like the splendid address of Mrs. A. E. Brigden, President of the New York State Federation of Home Bureaus, which is printed on this page. Mrs. Brigden broadcast this talk from the WEAF station at 6:30 standard time, Wednesday evening, May 2d. In our opinion, Mrs. Brigden's talk on the farm home and its problems brings out some of the best things that have been said and read about the home in a long time.

This address is another one of the series of talks by farm and home leaders which is being given farm people through the cooperation of of American Agriculturist with the American Telephone and Telegraph Company through the broadcasting station WEAF. We are receiving a lot of letters. The questionnaires which we asked you to fill out about radio are being returned in good numbers. Folks all through our territory are talking about our radio service. All of which shows that farm people are tremendously interested in the possibilities of the radio and are willing to cooperate with us and with the broadcasting station to get radio programs which will be of special interest and value to country folks.—The Editors.

Quotations Worth While

LET us try to remember through the whole course of this inquiry into the relations of States to States . . . that the prospect of improving the relations of States and peoples to one another depends ultimately upon the possibility of improving human nature itself. Communities are nothing at all except so many individual men and human nature will advance no further in communities taken as a whole than the members of the communities themselves advance. Human nature in the civilized nations—and international advance can only go on if it goes on simultaneously in many nations—human nature can only be raised and sustained by the efforts of individuals. The citizens of a democracy can do everything if they express their united will. The raindrops that fall from the clouds unite to form a tiny rill, and, meeting other rills, it becomes a rivulet, and the rivulet grows to a brook, and the brooks as they join one another swell into a river that sweeps in its resistless course downward to the sea. Each of us is only a drop, but together we make up the volume of public opinion which determines the character and action of a State. What all the nations now need is a public opinion, which shall in every nation give more constant thought and keener attention to international policy. . . . All nations are the children of one Father in heaven.—VISCOUNT BRYCE.

* * *

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Concerning Hedgerows

"And The Stone Wall Thereof Was Broken Down"

By J. VAN WAGENEN, JR.

"I WENT by the field of the slothful and by the vineyard of the man void of understanding and, lo, it was all overgrown with thorns, and nettles had covered the face thereof, and the stone wall thereof, was broken down. Then I saw and considered it well: I looked upon it and received instruction." — Solomon the Wise.

J. VAN WAGENEN, JR.

The bygone masters of Hillside Farm bequeathed to us along with the old fields some miles of rambling stone walls. I remember the Pennsylvania farmer who declared concerning his farm that "if all the dirt was salt and all the stone was pork, there wouldn't be salt enough to save the pork." I pass this on as a happy example of whimsical exaggeration. Well—Hillside Farm was never as bad as that. It was never stony as compared with many New England fields or with much of that belt of farm land that makes up the borders of the Adirondacks but it was at least sprinkled with "hard-heads,"—granite boulders brought down from the northeast by the glacial ice-sheet so that most of our fields were fenced with stone walls.

My father used to tell me that in his youth it was regarded as a rather fortunate fact that our farm "had stone enough to fence it." Today I cannot but stand in wonder and admiration at the stupendous toil that went into those walls. Not only were the surface stone gotten out of the way but as far as possible all that interfered with the plow were dug and pried out and hauled to the walls, often by two ox-teams hitched tandem. Very many of them were first blasted with black powder long before the days of dynamite.

One of the very earliest recollections of my farm boyhood is James Barker patiently using the churn drill, taking several hours to get a hole a foot in depth, then loading it with powder, tamping it down with the dust from the drilling and firing it with the old uncertain fuse. I think a day was frequently given to the job of getting a single stone broken up enough so that it could be handled with a couple of teams. In those days there were not lacking men skilled in the rough masonry of laying stone walls.

Some of the walls on our farm were high enough so that nothing on top was needed but many of them were "staked-and-ridered" with pine rails. The farm once had thousands of these ancient rails and there are a good many of them left yet. But I note with sorrow that, like the veterans of the Civil War, the annual death-rate among them is becoming wonderfully large.

My father's memory ran back well before the middle of the last century and he told me that never within his time had any considerable number of rails been split on our farm. I feel sure that nearly all of them are at least a hundred years old and all that time they have lain out through summer heat and winter tempest. They are gray and bleached without. But within, they are as bright and fragrant as when the pioneers rove them in the days when the last century was very young. I wonder if we—you and I—are doing anything on our farms to-day that will cause men to remember us and to speak of us with tenderness a hundred years from now.

What wonderful wood that old pine was, light, elastic, fragrant, time-defying, with a grain like satin ribbon. We shall never see the like again. An oak rail sags in the middle and becomes crooked and warped with the years but a pine rail remains to the end as straight as an arrow and as elastic as a steel spring. I am told that there is absolutely no satisfactory substitute for white pine for pattern making and that this use alone will ultimately consume our reserve supply of this noble wood. What a pitiful remnant of our one-time forest remains in the eastern States. How we have squandered our imperial heritage. But after all we cannot blame our forefathers because for the first two centuries of American settlement men could regard trees only as enemies to be gotten rid of in every possible fashion. The greater part of the best of our eastern forests were never utilized. They were felled in windrows, the fire run through the fallen mass, and then the blackened trunks drawn together in great heaps for the burning. The most inconceivable thing is how in the world a heavily wooded country was ever conquered for the plow.

The Stone Wall—One of the monuments to the patient labor of our forefathers.

Well, these musings have come about because during the last two weeks most of our spare time (if there is ever any such thing as "spare time" on a farm) has been devoted to getting rid of one of the long stretches of stone wall that my grandfathers piled up. From time to time we try to tackle this sort of a job because with modern machinery large fields are more important than of old, and because in the end, all stone walls tend to fall down and revert to hedgerows such as Solomon was thinking about in the quotation which stands at the head of this article. Then, too, during the years we have had the bad habit of picking off the loose stone and throwing them in a windrow against the base of the wall because it was the easiest way to get rid of them.

The worst enemy of stone walls is the heaving of the frost and because it draws out first on the sunny side while the shaded side remains frozen, our stone walls tend to topple over to the south at this time of year. A fallen stone wall not only ceases to serve its original purpose but becomes merely a refuge for woodchu[illegible] and a propogat-

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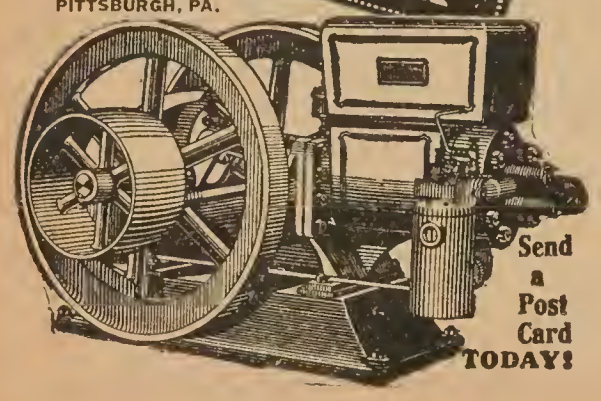

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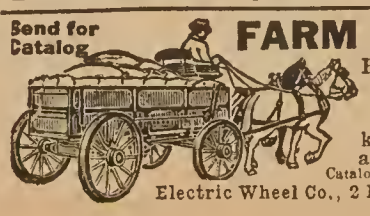

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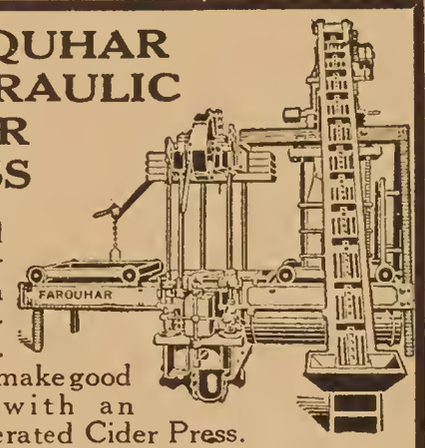

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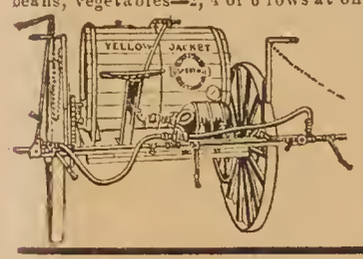

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ing nursery for hedgerow plants that cannot be close cut or trimmed.

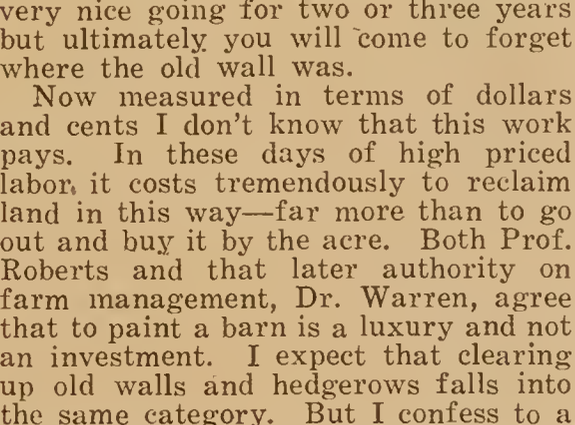
With us there seems to be about four species of hedgerow plants that are far more numerous than all the others. But I suppose that the number and the species will vary greatly in different localities. With us, everywhere and always when protected from grazing, the wild red raspberry runs riot although there are regions where it is an unusual plant. Then there is the so-called "red-willow," really a dogwood with very slender and at certain seasons almost brilliantly red branches. Then there is the humble but omnipresent choke cherry; and last the elm, —most beautiful and distinctive of all our native trees and yet the greatest nuisance when out of place. Raspberry bushes can be plowed rather more easily than heavy alfalfa. A good, steady, powerful team can rip and tear through almost any growth of red-willow or choke cherry but it takes only a small elm sapling with roots tough and fibrous as white-leather to hold up anything short of a locomotive.

So we have been wrestling with the destruction of this old wall which men once labored so hard and patiently to build. Where the bad habit of always plowing around a field and throwing the furrow against the fence has been followed it will often be found that there is more wall below the surface than above.

The stone we are putting to a new and I hope a better use by drawing them to the bank of the pasture brook where we have made the beginings of an ice pond. This clearing up of walls and hedgerows is a job that we have done a good deal of within my memory. With us, clearing up a wall means first cutting down any brush that may be in the way, then drawing all the stone small enough to be readily loaded on a wagon. Then comes the digging around and prying up and loading on a stone boat all the big ones in sight, and then the use of the plow which never fails to reveal an astonishing crop of unseen stone. The plow should be accompanied by the bar and pick to get out of the way and throw to the surface all loose stone. Finally the ground should be harrowed and reharrowed many times and all fast roots cut off and the rubbish picked up and burned. With the best of effort it will not be very nice going for two or three years but ultimately you will come to forget where the old wall was.

Now measured in terms of dollars and cents I don't know that this work pays. In these days of high priced labor it costs tremendously to reclaim land in this way—far more than to go out and buy it by the acre. Both Prof. Roberts and that later authority on farm management, Dr. Warren, agree that to paint a barn is a luxury and not an investment. I expect that clearing up old walls and hedgerows falls into the same category. But I confess to a keen sense of satisfaction as I see the fields widen and the corn rows run where once in the tangle, the woodchuck dug his hole. I find no work quite as fascinating as this expensive method of adding acreage to the old farm.

Famous Guernsey Cows



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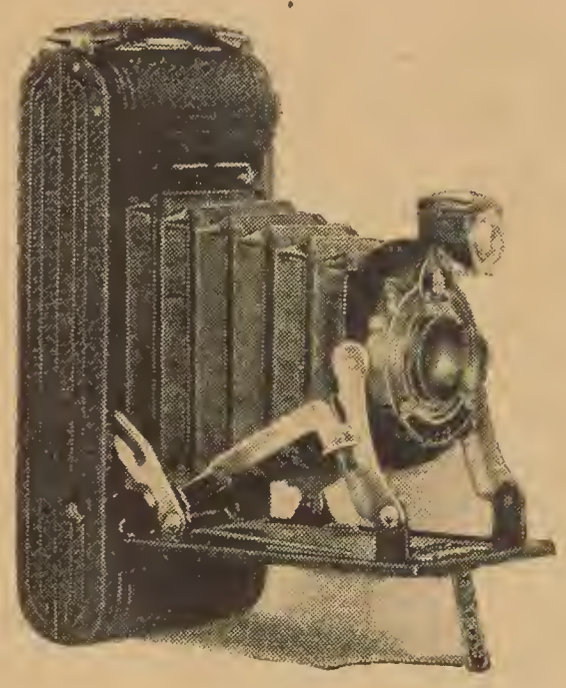

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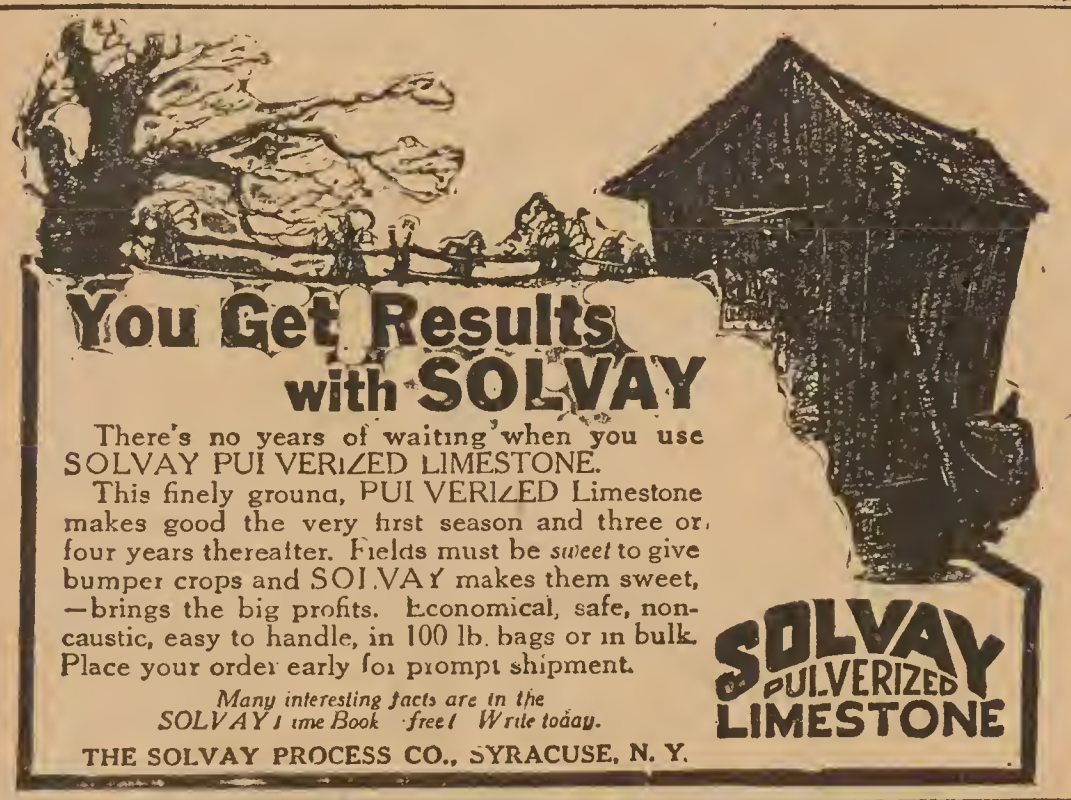

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Saving Time and Space

Efficiency in Intercropping Vegetables

By PAUL WORK

INTENSIVE gardeners frequently save land, labor and plant food by arranging for more than one crop to occupy the ground at the same time. One fairly common plan calls for setting early cabbage in rows, say 30 to 36 inches apart, spacing them at 14 to 16 inches in the row. Lettuce plants are set at the same time between the cabbages in the row, and a row of lettuce is also set between the cabbage rows. Under this scheme the one crop takes advantage of the time when the other does not fully occupy the ground, and it is removed by the time the main crop reaches good size. Some even go so far as to plant radishes between lettuce and cabbage. The radishes are then removed at four or five weeks, the lettuce at eight weeks, and cabbage-cutting begins at nine or ten weeks.

PAUL WORK

Another plan of inter-cropping allows crops to overlap for a few weeks, thus allowing two harvests when but one would otherwise be possible. Muckland gardeners sometimes plant two rows of lettuce 14 inches apart, then skip one and repeat. As the lettuce nears maturity, celery plants are set in the vacant row.

Inter-cropping is not without its disadvantages, each crop being more or less in the way of the other. Also there is almost sure to be some loss of space. It would be hard to realize much more than half a crop of lettuce between the cabbage. If the season will permit growing lettuce to maturity before celery is planted, there will be 50 per cent more plants of the first crop and the inconvenience in planting the one and harvesting the other will be avoided.

It is hard to lay down rules. Those who like inter-cropping find almost countless combinations, each with its own advantages. Those to whom the idea does not appeal get along very well with one crop at a time.

Fighting Cabbage Maggots

Maggots seem to be growing more troublesome as time goes on. These tiny "worms," or grubs, are really the larvæ which hatch from the eggs of certain flies. There are many species, different ones for different plants. The cabbage maggot fly appears about the time early plants are set in the field, and the eggs hatch in time to do serious damage. It is only recently that a satisfactory control measure has been devised. Corrosive sublimate in the usual one-to-a-thousand solution is applied around the stem of the plant, using about half a cup each. The first application is made as soon as the plants are set and a second week later. Sometimes a third is advisable. The liquid may be poured on with a dipper or cup. Of late special devices with nozzle and valve have appeared on the market.

The cabbage maggot is one of the worst foes of the early cabbage crop. Years ago, protection by means of tar paper disks was proposed and this method has been rather widely praticed, although it is costly and it is difficult to make them effective. The disks must be close to the ground and yet must not have soil on top. More recently the use of corrosive sublimate has been tried in several States and is being widely adopted.

"The Cabbage Maggot," Cornell Bulletin 413, by G. W. Herrick and Wallace Colman, reports recent experiments on the control of cabbage maggot by means of corrosive sublimate. The authors advocate two to three treatments, a week apart, beginning a few days after setting, applying each time a quarter of a teacup of 1,000 to 1 solution around the stem. The object is to wet the soil and stem with the solution. The cost per acre for two applications, including labor, is $18.25 and for three applications, $27.38, assuming 12,000 plants per acre. In the experiments the value of cabbage from treated plots was $190 higher than untreated plots. This large increase was partly due to the fact that the treated plants were earlier and commanded higher price on the market. With 600 plants set in each area, the treated block gave 573 heads weighing 1,245 pounds, worth by actual sale, $27.40. The untreated plot yielded 472 heads weighing 916 pounds which sold for $17.62.

Cabbage Seed Treatment

Black-leg of cabbage attracted a great deal of attention last year through its wide prevalence and the serious losses which it caused. Doubtless conditions were especially favorable in 1922, but even though the season of 1923 may be less favorable for the fungus, the very general infection of last year is likely to make the danger greater than usual.

Black-leg is carried on the outside of seed coats, and also within the seed. It winters on dead material of cabbage and related plants. It is readily carried from field to field by horses, men, and equipment. Seed treatment, planting in fields that have not grown cabbage lately and care to avoid carrying, are all recommended precautions.

Seed treatment by hot water is advocated by Cornell pathologists. Ordinarily, and for most diseases, the seed is immersed in water at a temperature of 133° F, for ten minutes. If it is suspected that the seed is infected with black-leg it is suggested that water at 122° F for thirty minutes be used. This latter takes care of the disease both within and without the seed coats. At the same time, it is rather drastic and it usually reduces the germination somewhat—sometimes as much as half, depending upon the viability and vigor of the seed before treatment. Hence it is necessary to have an ample supply of seed and to make a germination test after treatment as a guide to the rate of sowing.

Finishing Off Tomato Plants

The care of tomato plants during the week or ten days before they go to the field is of great importance. At this time they become crowded, the weather is warm and there is every opportunity for them to grow soft and spindling, unless the watering is managed with skill. Plants ought not to be allowed to wilt but a surplus of water is even worse. A soft plant will not withstand chilly nights nor the whipping of hard winds. There is also reason to believe that well hardened plants are less attractive to cutworms.

Intensive vs Extensive Gardening

The view has been expressed in this column and elsewhere that the old-fashioned market garden, with its small area, large proportion of hand work, difficult manure problem and generally intensive and costly practices, is gradually passing.

C. E. Haw, a veteran and exceedingly skillful gardener at Syracuse, takes exception to this view. He says intensive gardening is still sound and will be largely practiced for a long time. His own place is his argument. Mr. Haw's farm consists of 13 acres, which has received no manure for 15 years save that supplied by two horses and a cow—now one horse and a cow. He specializes in early crops, tomatoes and sweet corn in particular, but others as well. All the land is seeded to rye in the fall, and the acres that are earliest free are seeded to vetch. He uses 2½ tons of acid phosphate and 1,500 pounds of nitrate. He has applied no potash for four years. Now he begins to see the lack, and is buying 1,500 pounds of muriate this season. He is confident that his soil is as good as 15 years ago, and he has fewer weeds. He plows under sweet corn stalks instead of feeding them, and so saves labor. Mr. Haw is using gasoline power, and he thinks the horseless garden is not out of sight.

Pennsylvania State Farm Council Now Organized

AS the outgrowth of the recent Pennsylvania Agricultural Conference, there has come into existence a body known as the State Council of Pennsylvania Agricultural Associations, which is composed of agricultural groups and organizations rather than of individuals. Its official purpose is to represent organized agriculture in the State and to bring together the various groups for a round table discussion on topics of mutual interest. It also desires to co-ordinate farm associations for definite action and to initiate and support legislative measures beneficial to farming. Its first official step was to urge economy upon the legislature in the expenditure of State funds.

Officers elected are: President, M. J. Phillips; Vice-President, Mrs. F. B. Black, President of the State Federation of Farm Women's Clubs, and Secretary-Treasurer, John D. McKee, Deputy Secretary of Agriculture. These together with Dean R. L. Watts, of the Pennsylvania State College, and Master John A. McSparran of the State Grange, make up the Executive Committee.

The Pennsylvania Farms Bureau Federation plans to start active operation on May 1, opening official headquarters at Harrisburg, Pa. Paul Hoffman, County Agricultural Agent in Adams County, Pa., has been chosen as Secretary for the body. Mr Hoffman has made an excellent record in the Farm Bureau work in his county and his appointment to the State Farm Bureau has been received with much favor.

The Pennsylvania State College of Agriculture is developing plans for a larger summer session this year than ever before. Applications from public school teachers and others interested in the summer training school have been pouring in rapidly at the college and an exceptionally large registration is expected. Almost 2,700 men and women were enrolled at the college last season. A faculty of over 200 has been engaged for the work, a number of which are coming from other schools and colleges.

CENTRAL PENNSYLVANIA NOTES

J. N. GLOVER

Farmers are busy seeding oats and plowing sod for corn. Many farmers have plowed sod before seeding oats on account of the cold weather, which will retard germination of oats at once. Since frost was only a few inches deep last winter, the ground plows harder than usual. Then, too, the ground has dried out lately, for no rain has fallen for nearly two weeks.

Clover seed has been sown and manure has been hauled to sod fields, instead of allowing it to rot in yards until fall seeding. Feed seems plentiful on farms and some hay will be baled later for sale. Apple trees are being sprayed for the first time.

Several carloads of Michigan seed potatoes have been shipped into Union County as disease-free seed. The Pennsylvania Farmers' Cooperative Federation of Philadelphia sold a number of carloads of fertilizers in this section, saving much of the dealer's profits. They believe in square deal and expect to sell many carloads of dairy feeds this fall at a saving to farmers.

The eight months' term of school is up and farmers will get some help from children old enough to help on farms.

This may be a good year to stick to the farm, though the outlook is none too encouraging as to help and wheat crop prospects.

Famous Guernsey Cows

Faith of Rockledge is owned by B. N. Dickinson, Chazy, N. Y., has a record of 13,999 pounds of milk and 663.6 pounds butterfat, giving her seventh place in Class CC. She carried a calf 273 days of her test period. Her record was made ON AN ORDINARY FARM and had several different milkers handling her during her test period. She has a very amiable disposition and is always ready for her feed.

URGES PENNSYLVANIA FARMERS TO SUPPORT TRESPASS BILL

A bill has been introduced in the House of Representatives in the Commonwealth of Pennsylvania by Representative Woner from Butler County, which is designed to protect private land against trespassing. The bill was prepared by F. M. Dean, Secretary of the Farmers' Game Protective League of Eldorado.

The bill provides for the posting of private land, calling for the use of printed signs not less than a foot square which shall be located at intervals not exceeding 40 rods apart and shall be posted at least 30 days before the open season for game and fish. Trespassing will only be permissible upon securing a permission from the owner or caretaker of such lands.

Persons guilty of trespass will under the law be liable to a penalty of $50 or a jail sentence—one day for each dollar of fine or cost. One-half the fine, according to the bill, goes to the school fund of the district in which the offense is committed and the other half goes to the general fund of the Commonwealth.

Mr. Dean in the letter to American Agriculturist urges all Pennsylvania farmers and landowners to write their representatives and Senators to support this bill. He writes: "If you will urge the farmers to write their representatives in your next issue of American Agriculturist, I believe we will be as successful as we were in defeating and securing the repeal of the Daylight Saving law." Be sure to write your representatives.

We are new subscribers to your paper, and do thoroughly enjoy the weekly visits of the American Agriculturist. —F. L. FOSTER, Oswego County, N. Y.

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Can you imagine a gas well right in your own yard? Then you have a vision of the Colt Lighting-and-Cooking Plant—known everywhere as the Colt "Gas Well." From it comes Union Carbide Gas, made automatically as needed—a gas for convenience and comfort—

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no more lamps to clean and fill
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—hot water for washing!

The Colt "Gas Well" makes these tasks lighter—brings the relief your wife has always longed for.

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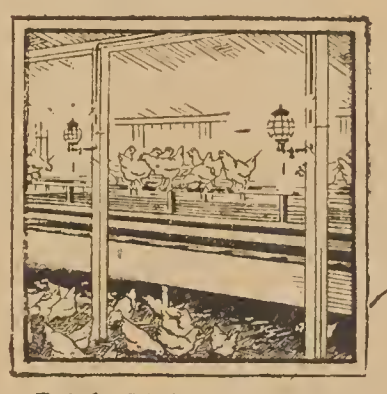
Remember—your wife's kitchen is her workshop

How many summers has she burned of her health and courage in that stifling kitchen—overheated to exhaustion by the hot cook stove—facing the week's wash or an all day's ironing! And the meals to be got, bar nothing! At bedtime mentally and physically exhausted—head aching—nerves on edge—and tomorrow all over again.

Let us help you change all this

Union Carbide Gas from the Colt "Gas Well" makes a cooler kitchen. Heats the water, or the iron, and cooks without heating up the room. Instantly turned on or off—work shortened—an extra hour or two for rest and enjoyment of this greatest of all home improvements.



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New Cooperatives Started

For Seed and Cherry Growers—Albany Farm News

By M. K. FENNELL

ANOTHER New York State Co-operative association has been formed. It is called the New York Seed Improvement Cooperative Association, Inc., and its aim is the use of better seed by New York farmers. The association is now set up and ready to inspect and certify crop seed raised by members.

Every year in New York, as in other States, millions of dollars are lost through lessened production resulting from inferior seeds—Southern grown seed that cannot survive the Northern climate, seeds with a high percentage of impurity, seeds of low yielding ability. It is not unusual to find a statement like this with a bag of seed: "We give no warranty as to the description, purity, quality, or productiveness of these seeds and cannot be responsible in any way for the crop." Where farmers are using 5,000,000 bushels of grain and other seeds and 3,500,000 bushels of potatoes, investing annually close to $20,000,000 in seeds, some guarantee of a crop might well be considered essential.

The principle of pure breeding may be applied to seeds as well as to cows. There are strains of oats that yield more bushels of grain per acre and withstand storms better than other strains. The same is true with wheat and barley. There are varieties of cabbage, potatoes, and beans which are particularly resistant to disease and yield more tons or bushels to the acre than do others not carefully bred or selected.

Membership Requirements

Any bona-fide grower, contract grower or prospective grower, of any crop seeds in New York State may apply for membership in the seed association. Cancellations will be received during a withdrawal period. When a grower is received in the association he receives the services of the organization, which is the only State-wide body prepared to officially inspect and certify New York State crop seeds.

While membership is on the individual basis, provision has been made for group representation by crops through advisory committees elected by the growers of the various kinds of crop seeds. Besides these crop committees there will be an advisory council made up of representatives of the State College of Agriculture, the Geneva Experiment Station, and such other persons as the board of directors may appoint. There will also be a committee of reviews to check all inspections and hear and pass upon complaints.

A board of directors of five has been elected for one year. Bruce P. Jones of Hall is President, and Elmer E. Hults of Marathon, Vice-President. The other members of the board are Lyman L. Foote, Malone, H. B. Munger, Bergen, and A. M. Reed, Cortland.

CHERRY GROWERS ORGANIZE

New York's cherry crop is the latest recruit to cooperation. Recently at a meeting of directors of the New York Canning Crops Cooperative Association, Inc., it was voted to handle the cherry crop of members of the association and pitters have already been secured which will be installed at certain points in cherry producing territory. After the fruit is pitted it will be put into gallon tins or barrels and placed in cold storage and frozen. Sales will then be made as the market price is right. During the past few years the consumption of cherries has been enormously increased by the fashion of adding preserved cherries to many drinks and ices. The great bulk of the cherry crop is canned and sold in the large cities.

New York growers are following a precedent successfully established by cherry producers of Wisconsin and Michigan where for the past two years the farmers have owned their own plants and factories. In 1921 a growers' organization in Michigan, known as the Grand Traverse Packing Company, canned 1,200,000 pounds of cherries, paying the grower at his farm 10 cents a pound. About that time the New York growers were getting 5 or 5½ cents a pound.

The sale of the cherry crop in New York has been highly speculative, because growers have had no storage facilities and no sales organization to develop new markets. New York cherries have been sold to the canneries on contract annually and at the lowest price. The Canning Crops Association hopes to largely remove the speculative element by cold packing fruit and seeking new markets.

Association members have been asked to report an estimate of their crop to the organization, for control of the New York crop is essential to the success of the enterprise. Meetings are being called in the cherry producing sections of the State where plans will be discussed by the producers.

FARM NEWS FROM ALBANY

The Downing-Hutchinson Education Bill, which embodies the suggestions of the Committee of Twenty-one, passed the Senate Tuesday, April 23. Only six Senators voted against this bill. The bill is still under consideration in the Assembly at this writing.

* * *

A very important bill affecting the cooperative law provides for the issuing of bonds or preferred stock where new or additional capital is required, paying a rate of interest not exceeding 8 per cent. This would allow the establishment of some cooperative enterprises without the investment of so much capital by the farmers themselves.

* * *

A bill providing for the joint administration of the Cornell Agricultural College and the Geneva Experiment Station has passed the Assembly and is now pending in the Senate Committee. The only opposition to this bill comes from the city of Geneva which fears that some of the activities of the station might be removed from Geneva to Ithaca. The consolidation has the approval of Dean A. R. Mann, of the College of Agriculture and Dr. Roscoe Thatcher, director of the Experiment Station, and the trustees of both institutions.

* * *

A third bill bearing on indemnities for slaughtered tubercular cattle has passed both houses and is before the Governor for his signature. This bill provides funds for payment of slaughtered cattle during the fiscal year 1923 to 1924. It is expected that the three bills, the first two of which have been previously reported, will pay for indemnities for slaughtered cattle until June, 1924.

* * *

The Assembly has passed one of Governor Smith's reconstruction bills proposing the constitutional amendment to consolidate 180 State departments and bureaus into 20 major departments and reducing the number of elective State officers from 7 to 4. As this bill is recommended by the Governor, it is now certain to become a law so that the proposed amendment will be submitted to the people of the State.

* * *

A bill has passed both the Assembly and the Senate, amending the Farms and Markets Law relative to changing grade and packing labels on barreled or boxed apples.

* * *

The present automobile license fee system would be replaced by a one-cent tax on gasoline, according to the bill introduced into the Assembly. The measure also provides for a flat license fee of three dollars for pleasure cars and ten dollars for electric machines. This gasoline tax is a law in some States now, and has been discussed for some time as a possible law in New York.

* * *

One of the new laws of 1923 will provide for a hunter again wearing a button showing that he has a license. This button will be worn in a conspicuous place. The law will become effective January 1, 1924.

Spring Fires Severe in New Jersey

W. H. BULLOCK

NEARLY every section of New Jersey suffered from spring forest fires in late April. Some of the more heavily wooded sections have a damage estimated into the many thousands. In Atlantic and Ocean Counties the forest fire damage was particularly severe, destroying not only scrub pine growth, but wiping out some farm houses and seriously threatening a number of the small towns. Through the general farming and dairy sections of Somerset and Morris Counties considerable loss was reported. On both sides of the Delaware River in Warren and Sussex Counties, N. J., and adjacent counties in Pennsylvania, the fires were very severe. Even in Burlington County, considerable damage was suffered.

Lack of State Protection

The more than usual attention which was focused on fires in New Jersey this spring has occasioned considerable comment upon the lack of forest fire protection in that State, as compared to the quite generally adequate protection to forest and farm lands in adjacent States. The New Jersey State Department of Conservation and Development has been badly handicapped for years by lack of sufficient state funds for fire prevention, but the funds have not been forthcoming and the State has come in for considerable criticism in this regard during the past few weeks.

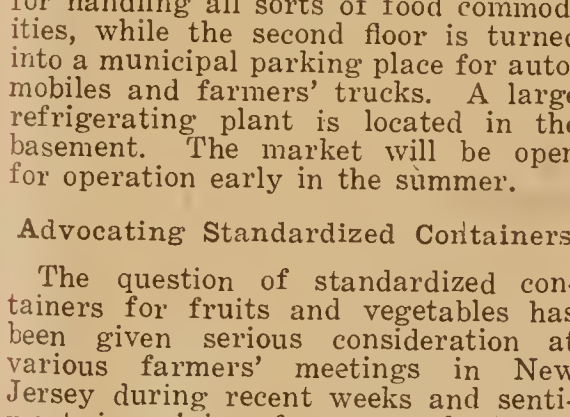
Newark Market Building Completed

A splendid marketing building, which is one of the best in the country, has just been completed in Newark, N. J. It will offer farmers and dealers a type of retail distributing service which has been badly needed in northern New Jersey for years. On the ground floor of the new building are accommodations for regular merchants' stands for handling all sorts of food commodities, while the second floor is turned into a municipal parking place for automobiles and farmers' trucks. A large refrigerating plant is located in the basement. The market will be open for operation early in the summer.

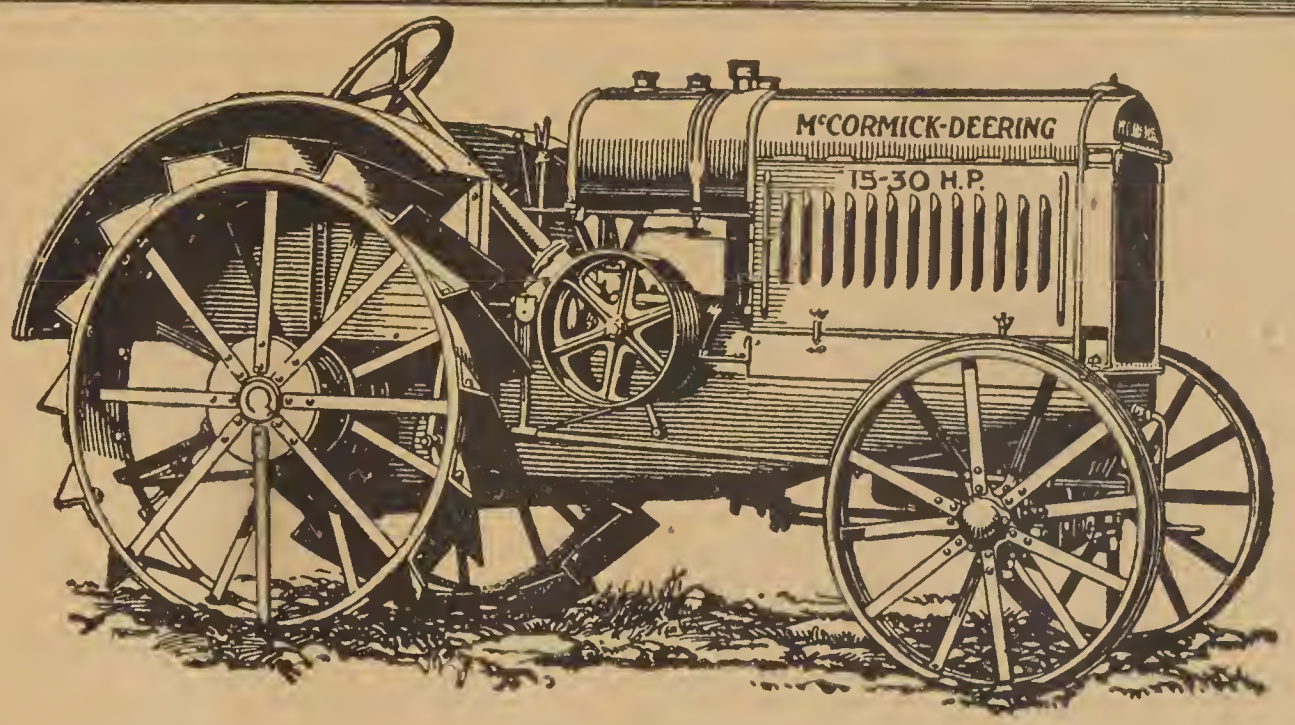
Advocating Standardized Containers

The question of standardized containers for fruits and vegetables has been given serious consideration at various farmers' meetings in New Jersey during recent weeks and sentiment is gaining for a standard size which will come into general use in all of the markets. The New Jersey State Department of Agriculture is working closely with the United States Bureau of Markets on this matter. The proposed containers which are larger than 1 quart would include the following sizes: 2-quart, 4-quart, 8-quart, 16-quart, 24-quart and 32-quart or bushel. This matter is extremely important to New Jersey growers since they buy containers in very large quantities. One association alone, in the southern part of the State, has placed one order for over 100 cars.

Famous Guernsey Cows



Criterion's Clara Bella, fifth in Class B, the 4½ year old division, produced 15,709 pounds of milk, 856 pounds butterfat in a year. She is owned by W. D. Mahony of Averill Park, N. Y. He purchased her from Mr. Buckley of Valley Falls, N. Y. In commenting on her performance Mr. Mahony states, "That at no time during her test did she go off her feed or was she in any way indisposed. She finished her test in better condition than when she started."



For the Man Who Is Buying His First Tractor

DON'T underpower yourself when you start tractor farming. Our dealers can sell you a 10-20 h. p. McCormick-Deering Tractor, but more than likely it will be far more practical to invest in the husky 15-30 h. p. size. Underpowering is a common mistake made on the farms today. If you could take a general canvass among tractor owners you would be surprised at the number who admit, "I ought to be pulling another bottom," or, "I can't touch that size belt machine," or, "I didn't realize how many more jobs I could have handled with a little extra power."

Don't make that mistake. Remember that when it is a McCormick-Deering Tractor you take home you are making a power investment to hold good for fifteen or twenty years, if you give it just ordinary good care. Be ready for all sorts of drawbar and belt power demands that will come along from now on. The extra power will pay for itself over and over again.

McCormick-Deering 15-30—the 1923 standard of farm power, developed by the Harvester Company's engineers—is a 3-plow tractor with liberal power in proportion for all-year-round farm work.

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Comfort and safety features, such as platform, wide fenders, adjustable seat and foot levers.

All these details and other features are built into the up-to-date tractor pictured above, and it is backed by McCormick-Deering quality assurance. You will agree that here is a practical farm power unit worth your close study. Stop at the McCormick-Deering dealer's store and get acquainted with the McCormick-Deering 15-30 Tractor.

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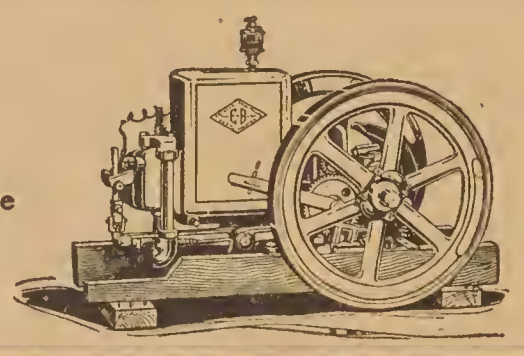

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THE E-B LINE

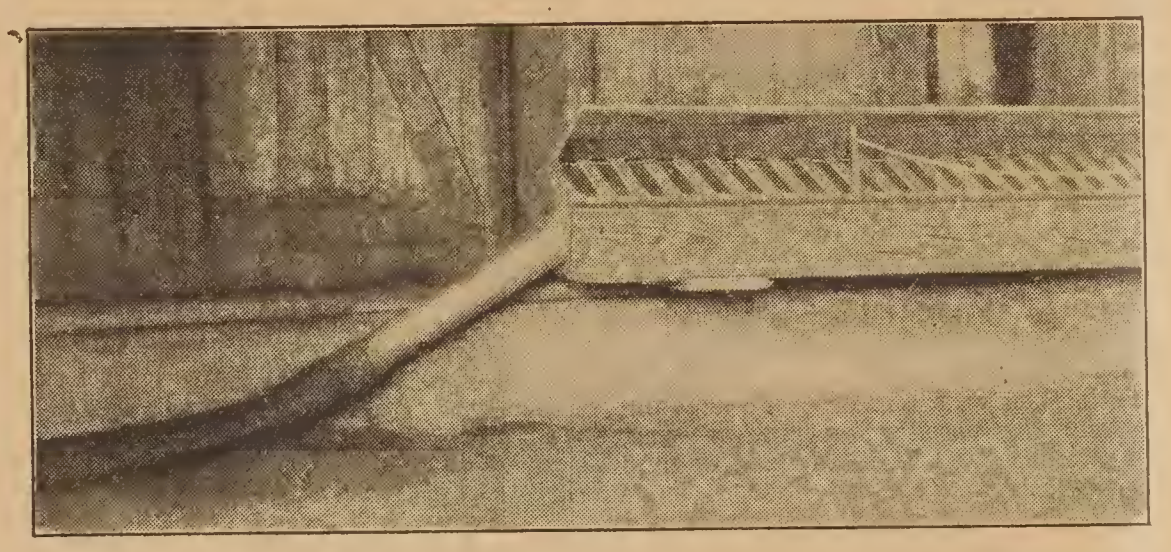
The Hen House Rat

How To Combat It and Other Enemies of Poultry

By L. H. HISCOCK

ONE of the easiest places to catch and destroy rats is in the hen-house by the use of simple home-made devices or by turning feed hoppers or troughs into traps. The very fact that the hens eat from these hoppers or stand on the box traps seems to give the rats confidence, or else destroys the man scent so that they walk into them blindly. Of course, the work connected with these traps must be done by the poultryman at night, but, as the farmer or chicken man is generally around in the early evening, it is not a great hardship to pull a string if it results in killing a few rats.

One of these traps is made for rats especially. It is a box eight feet long, ten inches or more high and a foot wide. The cover is hinged along one side. To set the trap, a small piece of wood is placed to raise the unhinged side, and to this wood or prop is attached a piece of string leading away through a window or door, where the trap may be sprung without disturbing the rats. Bait the trap with corn of some sort, and be sure you spread this in the box with a shovel or pail. Under no circumstances use your hands.



All set for Mr. Rat. He meets his end in the bag at the left.

Be sure the upraised cover is heavy enough to drop instantly. You have the choice of putting chloroform in the box to kill the rats, or you may make it with a spout on one end and set it up off the floor like the trap pictured.

In this case an open dry-mash hopper was the trap. The hopper had a high board in back, a low board in front and slats from one to the other through which the hens put their heads to eat. A hinged top was fastened to it, and a small prop with a string attached was used to spring it. But to get the rats out, a hole was cut in one end of the hopper and a four-inch stovepipe nailed to it with a good down pitch. Over the lower end of this a good, stout bag was fastened. When the trap was sprung, by beating on the hopper, the rats were driven into the bag, where it was easy to club them to death.

The beauty of these devices is that no rat is ever killed in the hopper, a thing which generally puts other rats wise. The man scent, caused by handling traps, is entirely lacking. The very fact that the hens eat from the hopper is enough to make the rats keep coming. The hopper as a sole source of feed brings the rats which never detect danger as long as no rats are killed in it.

distance. Set traps occasionally. A good set is made at the foot of a tree. Nail a piece of meat to the tree ten inches from the ground. The weasel will stand upon its hind legs and jump for the bait and be likely to get caught.

Around the stone walls, the traps are placed under stones that arch. It is a good plan to place a handful of poultry feathers under the trap, as these attract the creatures. Drop a few drops of blood from some animal about the trap whenever you visit it and that is all the bait needed. Traps for weasels need not to be fastened securely. Simply attach a small drag to the chain. The creature is very courageous but being so small is not very strong.

GAS 'EM

B. H. PAUL

A new use for the flivver but a practical one has been recommended by the poultry department at Wisconsin College of Agriculture.

Make a rat exterminator of your car if the rodents are causing your chick losses. The sure-fire rat exterminator put forth by the college is safe, there being no likelihood of causing a conflagration or endangering anything other than the game sought. The method is described as follows:

Back your car up to the infested area, leave the motor running and attach a piece of hose to the exhaust pipe, then place the other end of the hose in the rat hole. Catch the rats when they try to escape from other holes or openings. Young rats will be killed by the exhaust fumes before they are able to escape and the older ones will make a hasty exit.

MORE ABOUT GIVING THE HEN A REST

A. D. BORNT

I read with interest the article by Mr. Mapes in the March 10th issue and feel impelled to make a few comments. Right here let me beg friend Mapes to take these remarks in the kindly interested spirit in which they are meant.

It is my experience that breeding and feeding go hand in hand. Neither the one or the other may be slighted except at the cost of production. It would seem, however, that the problem of feeding has been better worked out than that of breeding. Take, for instance the world's record pen of Leghorns at the Western Washington Contest, which averaged over 284 eggs for each hen. It seems to me these birds started to lay and kept it up with a vengeance. Several birds in this contest, ten to be exact, went well over the 300 mark. Could they have done it if poorly fed? Would it have been possible without breeding?

Of course lighting brings its own problems, but I doubt the wisdom of starving or under feeding a hen simply because she has stopped laying. It might be well to vary the rations somewhat, feeding more largely on whole grains and reducing the protein content, but in every case the hens should be well and abundantly fed. They have a hard year's work before them and they must store in their bodies, to the great-

HOW TO TRAP ANOTHER HEN-HOUSE PEST, THE WEASEL

C. H. CHESLEY

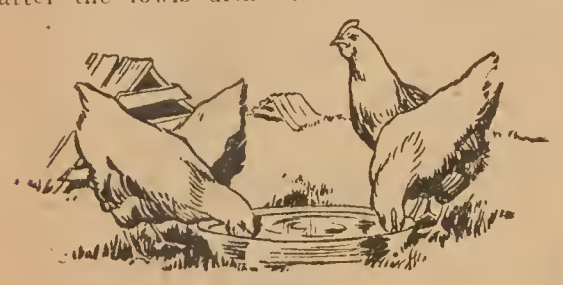
Every time the trapper captures a weasel he has the satisfaction of knowing that he has rid the earth of one of its most bloodthirsty creatures, one that kills great numbers of chickens, birds, squirrels and rabbits.

The weasel hunts about old stone walls and fences and it is in such places that we should set our traps. Small size traps should be used and a number of them should be placed in likely localities. Take the carcass of a muskrat or rabbit, after the animal has been skinned, hitch a string to it and drag it along the ground for a considerable

MINERALIZED WATER ROUTS CHICKEN LICE

Tablets Dropped Into Drinking Founts Banish Vermin, Make Fowls Grow Faster and Increase Egg Yield

Any poultry raiser can easily rid his flock of lice and mites, make chickens grow faster and increase their egg yield by simply adding minerals to the fowls' drinking water. This does away with all bother, such as dusting, greasing, dipping and spraying. The necessary minerals can now be obtained in convenient tablets, known as Paratabs. Soon after the fowls drink the mineralized water,



all lice and mites leave them. The tablets also act as a tonic conditioner. The health of the fowls quickly improves, they grow faster and the egg yield frequently is doubled. Little chicks that drink freely of the water never will be bothered by mites or lice.

The method is especially recommended for raisers of purebred stock, as there is no risk of soiling the plumage. The tablets are warranted to impart no flavor or odor to the eggs and meat. This remarkable conditioner, egg tonic and lice remedy costs only a trifle and is sold under an absolute guarantee. The tablets are scientifically prepared, perfectly safe, and dissolve readily in water.

Any reader of this paper may try them without risk. The laboratories producing Paratabs are so confident of good results that to introduce them to every poultry raiser they offer two big $1 packages for only $1. Send no money, just your name and address—a card will do — to the Paratab Laboratories, Dept. 889, 1100 Coca Cola Bldg., Kansas City, Mo., and the two $1 packages, enough for 100 gallons of water, will be mailed. Pay the postman $1 and postage on delivery, and if you are not delighted with results in 10 days—if your chickens are not healthier, laying more eggs and entirely free from lice and mites—your money will be promptly refunded. Don't hesitate to accept this trial offer as you are fully protected by this guarantee.

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White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437
Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

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est possible extent, the energy and materials for that production.

The ordinary commercial hen lays from 10 to 12 dozen eggs a year and this is the hen with which most of us have to deal. She will not stand a forced winter egg production. To avoid a spring slump she must be held back in winter. A 50 per cent production is dangerous except to an expert poultryman. Forty per cent is more nearly safe and as Mr. Mapes mentions, the hens at Storrs' are kept well within this limit. They may appear to him to be struggling to maintain this average, but remember these hens must lay for a year and a steady continued production is better than sudden spurts.

There is one question I would ask Mr. Mapes, but he will be unable to answer it before next November. "What is your average flock production per bird for the year?" This is the criterion by which all methods of feeding, breeding and housing must be judged. It is final.

Mr. Mapes' birds are starting late, he may be able to get them on range without a slump, but if they respond and go to 75 or 80 per cent in April and May, then I predict a mid-summer slump and a serious one. I doubt if anyone could hold them. It is within reason to expect them to go into molt during the last of July and August and refuse to lay until the next December. The culls selected by the Cornell expert are most sure to. I have followed their methods for several years and have practically eliminated early molting from my flock.

The winters in this particular corner of Chenango county are very long and severe and I find it more profitable and easier to secure fall eggs than winter ones. August eggs averaged 40 cents per dozen, September, 56 cents, and October, 71 cents, while I received for December eggs, 40 to 50 cents, January, 35 to 50 cents, and for February, only, 30 cents.

Thus it may be seen that my problem is to secure fall and early winter eggs and to do this I limit my production in spring. I use the Storrs' ration. In July, I add sour milk. In August a small per cent, about five, of linseed meal and from then on use every effort and device to hold and force egg production. Early pullets are the rule to begin laying in September and should some of them show a neck and tail molt in November they have already paid for themselves and begin laying again before January and continue through the winter.

WHO CAN ANSWER THIS?

I would like to hear from someone that has had experience with a home-made brooder. Also their best method of keeping away lice and mites during summer months. I know these are questions that are being discussed frequently. But very often the best method is not always given to the public.

I find that by inoculating the young turkeys when about eight days old is the best remedy to keep down blackheads, and make them grow. We also find the turkey hen an ideal mother for the young guineas. Last year there was so much dry weather that I believe many of the young guineas perished for the want of water in this section. But as an all-round mother, the turkey hen has proven herself worthy of a flock of guineas. She travels slowly and gives the little keets a chance to catch the bugs and millers flying around. Every one that has an orchard should have a flock of guineas to destroy the insects. —Mrs. G. Lehman, Pa.

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May 8-9—New York State Holstein Spring Sale, N. Y. Holstein-Friesian Association, Earlville, N. Y.

May 9—Mathew Hannah, Dispersal Sale, Brownville, Vt., J. G. Watson, Sales Manager.

May 15—Knollwood Farm Guernsey Sale, Port Chester, N. Y., L. F. Herrick, Worcester, Mass., Sale Manager.

May 15-16—Lancona Farms Shorthorn Sale, Titusville, Pa.

May 17—National Guernsey Sale, Devon, Pa., L. F. Herrick, Sale Manager.

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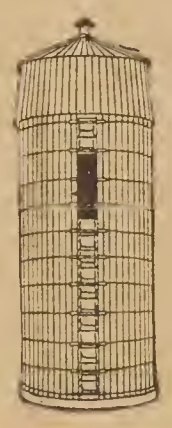

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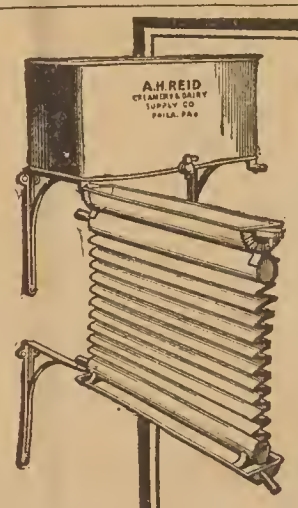

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Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
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White Wyandottes - White Rocks - Buff Rocks - Anconas	$5.00	$10.00	$19.00
Black Minoreas - Buff Orpingtons - White Orpingtons	$5.50	$10.50	$21.00
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S. C. White and Brown Leghorns.....10c each
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Lots of 500.....½ cent per chick less
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DON'T stop feeding your grain ration. Fresh spring pasture is fine for milk production, but for best results it should be helped out with grain, morning and night. By feeding Buffalo Corn Gluten Feed, in the mixture given below, your cows will produce enough extra milk to give you a good profit over the cost of feeding.

400 lbs. Hominy 100 lbs. Wheat Bran
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This ration is a milk maker, easy to mix, safe to feed, palatable and inexpensive. It has not a very high protein content (13%) and this makes it an ideal ration for feeding on pasture.

You will find that its low cost and high productiveness will make your farm show bigger milk profits than it ever did before at this season.

Mix the ration yourself or have your dealer mix it for you.

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When Writing Advertisers Be Sure to Mention *American Agriculturist.*

Guernseys—Why I Keep Them

(*Continued from page* 391)

and cream. This, coupled with a butter-fat test somewhere between 4.5 and 5.0 per cent, makes Guernsey milk the finest possible for table use. In addition, as I have said, the Guernsey cow is gentle and tractable, characteristics which one who has handled the nervous and high-strung Jersey, for example, will readily appreciate.

Originated as she was, the Guernsey cow will make a surprising amount of milk out of roughage—roughage on which, in our experience, a Holstein would dry up. This makes her a practical and valuable animal on farms where there is plenty of good hay and but little grain fed. In our work with our Guernseys this winter we have apparently discovered that, by limiting the silage feed to a rather small allowance, and increasing the clover and alfalfa hay accordingly, our cows have done much better than when fed heavily on silage. This change was not so noticeable when we tried it out in the case of the Holsteins.

Breed Limitations

To speak of the limitations of a dairy breed is dangerous, I know. Yet I believe that the man who starts breeding Guernseys without a clear understanding that there are certain handicaps which go along with the very fine qualities I have mentioned is doomed to disappointment.

To begin with, there are comparatively few Guernseys. This means that practically every pure-bred calf, bull, or heifer is raised and used for breeding purposes. What is happening now with Holsteins—countless numbers of pure-bred bulls being slaughtered and ordinarily good heifers not registered—is not duplicated with Guernseys, nor is it apt to occur.

Again, and this would seem to be borne out by figures, a Guernsey calf is harder to raise than a Holstein or an Ayrshire calf; and with us at least the cows are not so prolific, although they appear to breed longer, and thereby possibly make up in total number of calves.

Just as the sloper keeps bobbing up in the Holstein ranks, so the Guernsey with shy forequarters is constantly appearing. Happily, however, there are certain families of Guernseys which are strongly prepotent in good udders. Size, also, is likely to be lacking in the Guernsey cow, and a meaty udder which gives promise of a great deal more milk than you ever get from it cannot be entirely avoided.

None of these faults is entirely serious, but they are encountered frequently in the breed, and the man who shuts his eyes to them is liable to wake up some day to the fact that he has not been breeding the kind of cattle that he would like to own.

The Future of the Guernsey

Here my farm-management training is bound to triumph over my love for a good cow or my enthusiasm for the breed. Pretty generally, things that pay in farming endure, and those which do not are discontinued. In my judgment, the future of the Guernsey cow as an economic factor in America is going to depend entirely on her ability to pay in the hands of the average dairyman.

If she is to do this, the distinctive quality of her milk must be commercialized, because the Guernsey does not give enough more milk than the Jersey, nor nearly enough approach the production of the Holstein to win her an undisputed place on production alone, unless the peculiar quality of her milk and milk products is recognized.

This means that those of us who are interested in the Guernsey cow must keep her milk separate from other milk and must sell it as Guernsey milk. I can speak from experience in this, because I believe I was one of the pioneers in doing it, and I know it has paid. Others are beginning to do the same thing. A number of large cities now have Guernsey milk routes; a big company in one of our own New York State cities is about to offer a special Guernsey milk service to its patrons. Reproduced in connection with this article is a page of their announcement to customers.

As I see it, the future of the Guernsey breed is the brightest of any dairy breed in America to-day, because the Guernsey cow is the one cow that gives a distinctive milk—milk which once used sets the standard for all other milk thereafter. At last the men behind her have appreciated this fact, and on the commercialization of it will rest, I confidently predict, a Guernsey milk distribution in every town and city in the United States. This means hundreds and thousands more Guernseys paying in the hands of practical dairymen.

Has any breed brighter prospects?

PERSISTENT MILKERS BEST

B. A. MACKINON

I have talked with many farmers about their cows. "How much milk does that cow give?" I ask. "Oh! A mighty good mess—about a pailful." "Does she keep it up through the year?" is my next question. "Well, sometimes," and then he wants to change the subject.

Every farmer knows how much he gets for his milk, and how much his feed bought at the feed store costs, but the average farmer knows nothing about his cost of production. It seems almost impossible to show him that daily milking records which take only a moment to post at each milking might increase his profits tremendously. Many farmers with 40 milking cows would make more money with 20. Of those 40 cows, 20 are eating feed which costs more than their milk pays for. Eliminate that 20, cut the feed bills in half and the labor in half and immediately the bank balance begins to grow. From the money realized from the sale of the 20 "lemons" go out and buy, say, 4 really good cows that will give as much milk as the whole 20 and eat only one-fourth as much.

But right here is where many farmers continue their error. When he sells off his "boarders" and goes out to buy four or five new cows he demands cows that are "fresh". Buying fresh cows is all right if they have an official cow testing association annual record behind them. But we all have known many wonderful appearing cows which milked like the very mischief for the first 60 or 90 days and were not worth their keep after that time. The really smart buyer looks for cows that have been milking for eight or nine months and are about to be dried up. If they are still turning out enough milk to pay for their keep the presumption is that they will be good producers throughout the year.

We have kept milking records at Westview Farm, Pawling, N. Y., ever since we owned the farm, and these

Fecundity!

Fecundity, the ability to produce strong, healthy calves regularly, is essential to a profitable dairy cow.

FECUNDITY IN HOLSTEINS MEANS:

Full value from prepotent sires --

Assurance of regular herd increases year after year -- Extra profit from sale of surplus stock --

Regular freshenings and consequen increased milk production for the whole herd -- Larger annual net profits.

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EXTENSION SERVICE,
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HOLSTEINS

CATTLE BREEDERS

Glista Heifer Calves

SIRE: Korndyke Pontiac Glista, No. 268342, a grandson of the great Cornell cow, Glista Ernestine with seven records of over 30 lbs. butter in 7 days. Best record 677.3 lbs. milk, 34.22 lbs. butter 7 days.

These calves are from high producing dams, most of which have good A. R. O. records. Price ranging from $50 to $75 according to record and breeding of dam. Herd is T. B. tested.

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Holstein Cows For Sale

125 cows that are due to freshen within the next 60 days. They are as fine a lot of dairy cows as you could wish to see and are just as good as they look. You can save money by buying now.

A. F. SAUNDERS

Telephone 1476 CORTLAND, N. Y.

HOLSTEIN BULLS FOR SALE

Sons of

DUTCHLAND COLANTHA SIR INKA

FISHKILL FARMS, Hopewell Junction, N. Y.

HENRY MORGENTHAU, Jr., Owner

NOTE that a Milking Shorthorn holds the World's Record for production of milk and fat on two milkings per day. We have a few bulls of exceptional quality and breeding for sale, sired by Gen. Walby, a son of the famous Gen. Clay and out of Imp. Walby Belle.

WAMPATUCK FARM, CANTON, MASS.

Spot Farm Holstein Heifer Calves

$15.00 each, express

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HOLSTEINS

Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. J. A. LEACH, CORTLAND, N. Y.

HOLSTEIN BULL Born Dec. 7th, 1921. Sired by a 33-pound Son of King of the Pontiacs, Dam is 24.95-pound daughter Changeling Butter Boy. He is nicely marked, splendid individual, well grown and ready for service. Priced to sell.

FRED. A. BLEWER
Owego, N. Y.

HIGH-GRADE HOLSTEIN COWS

fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.

Browncroft Farm McGRAW New York

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records have been of tremendous value. We keep pure-bred Guernseys, and we are well pleased with our first year of testing. Of 12 cows on test, every one has made over 10,000 pounds and over 500 pounds of butterfat. Our daily milk records have shown us that the cow which gives a big flood of milk when fresh, is not necessarily profitable, while another cow which gives less but is persistent throughout the year is a real money-maker. Only carefully recorded daily milkings will tell you the truth. You wouldn't keep a hired man around who ate you out of house and home and did only one hour's work a day; why keep a cow that runs up your feed bills and produces less milk than her feed costs? Make yourself a gift of a milk scale and a milk-sheet.

NEW YORK GUERNSEY BREEDERS HOLD FIRST ANNUAL MEETING

The First Annual Meeting of the New York State Guernsey Breeders, Inc. was held at the Ten Eyck Hotel, at Albany, N. Y., April 20. Approximately 100 Guernsey breeders from all over the State attended the meeting.

W. E. Davis, secretary of the state association gave a report on nine months work of the association. His report showed a rapid growth in the association which bids well for the future of the business in New York State. The two sales held during the last year resulted in financial returns to the association.

Plans were formulated relative to the coming National Dairy Show, which followed shortly after the State Fair. The entertainment of visiting Guernsey breeders at the show was discussed; as a result action will be taken to entertain visiting Guernsey men from other States.

The association has been asked to name a member to represent their interests on the cooperative council. A committee was appointed to confer with a committee from the American Guernsey Cattle Club relative to the adoption of a cap or seal for milk bottles containing Guernsey milk.

A new feature of the association is the Junior Association for boys and girls who are members of calf clubs. Their association will be known as the Junior New York State Guernsey Breeders' Association. The State association plans to furnish ribbons for junior project exhibitors who are members of calf clubs winning at county fairs.

Carl Musser, associate secretary of the American Guernsey Cattle Club, gave some interesting facts relative to A. R. work and a review of the official records.

Dr. W. W. Williams, veterinary surgeon of Springfield, Mass., and the son of Dr. Williams of the New York State Veterinary College at Cornell, gave an interesting talk on diseases, illustrating his discussion with slides.

The last feature of the program consisted of the distribution of the cups for 1922. Those who were awarded cups are as follows:

Class A—L. A. Toan, Perry, N. Y., cup donated by Woodland Farms, White Plains, N. Y.;

Class B—H. H. Hamond, Mt. Kisco, N. Y., cup donated by W. H. Gratwick, Linwood;

Class C—E. F. Price, Port Chester, N. Y., cup donated by Saugerties Farm, Saugerties, N. Y.;

Class D—H. W. How, Bedford Hills, N. Y., cup donated by C. L. A. Whitney, Albany, N. Y.;

Class E—H. W. How, Bedford Hills, N. Y. cup donated by H. M. White, Coxsackie, N. Y.;

Class F—C. L. A. Whitney, Albany, N. Y., Cup donated by Chilmark Farms, Ossining, N. Y.;

Class G—Marion Lewis, Cameron Mills, N. Y., cup donated by Beaver Ridge Farm, Bedford Hills, N. Y.;

Class for Bulls—Taber & Mignin, Castile, N. Y. cup donated by Harbor Hill Farm, Roslyn, N. Y.

Right here I want to say that we have not been without your paper, the American Agriculturist, in over 12 years, and would not think of getting along without it on any account. We believe it is one of the best farm papers ever published. — Mrs. D. Hilliard, Croton, N. Y.

—Cow Testers Know that DeLaval Separators Skim the Cleanest

Statements from over half the cow testers employed by cow testing associations throughout the United States, reaching over 6000 farms, give additional proof of the superior skimming efficiency of De Laval Separators.

Cow testers know best of all what cream separators are used most, which skim cleanest and last longest, because they regularly test the skim-milk from the separators owned by their members. They say:

—"I find on an average De Laval Separators skim cleaner—from a trace to .04 of one per cent. Thirteen out of nineteen separators here are De Lavals."* (.01 of one per cent equals one lb. out of every 10,000.)

—"Out of 48 separator users 29 use De Lavals. I've found them the best skimmers for the longest time."*

—"26 members have separators, and 22 are De Lavals. They give the best satisfaction after considering all points."*

—"De Laval Separators have no equal for quality and efficiency. 15 out of 20 are De Lavals."*

—"90% of the separators used by my members are De Lavals. The majority skim closer than .02 of one per cent."*

—"The De Laval is a very close skimmer under any and all conditions. 95% of the separators here are De Lavals."*

—"I have 25 members and 18 use De Lavals. I have not had one test below .05 of one per cent."*

*Authorities for these statements from cow testers, together with many others equally good, are contained in a booklet entitled "Cow Testers—What They Do and What They Say About De Laval Cream Separators and Milkers." Send for it—contains information about the value of cow testing associations.

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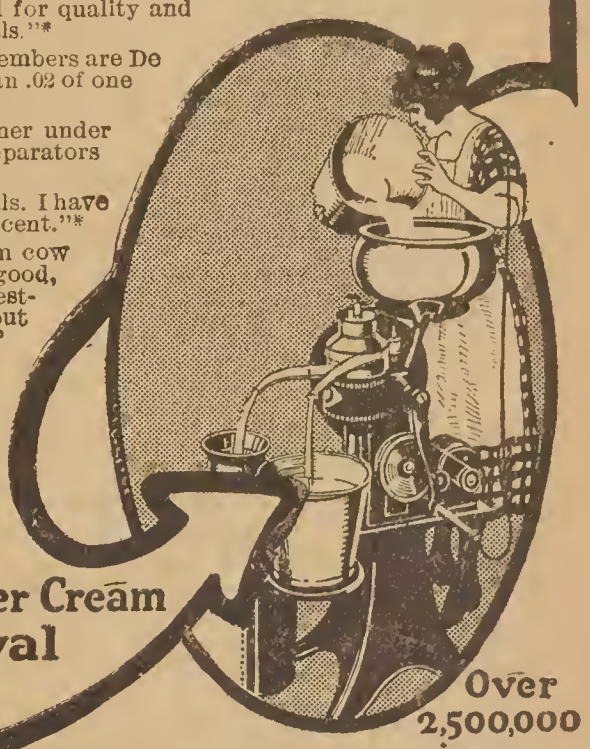

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Sooner or later you will use a De Laval Cream Separator and Milker

Bull Calves at Farmer's Prices

We have two Guernsey bull calves with dark noses; one out of an A. R. cow that produced 12,480 lbs. of milk, another out of an A. R. cow that produced 11,170 lbs. of milk last year.

We have two more with dark noses out of two-year old heifers now on A. R. test that produced over 1,000 lbs. each in the month of March and will do as well in April.

These calves are well-grown, straight and right in every particular and they are priced to sell quickly.

WESTVIEW FARM

Federal Accredited Herd PAWLING, NEW YORK

LOUIS MERRYMAN'S

SEMI ANNUAL GUERNSEY SALE

FRIDAY, MAY 18th

Timonium, Md. 10:30 A. M.

We have catalogued 82 animals. 43 cows in milk, 15 bred heifers, 22 open heifers, 2 aged bulls and 5 bull calves.

For catalogue, write

LOUIS MERRYMAN, COCKEYSVILLE, MD.

HOMESPUN TOBACCO Chewing—5 lbs., $1.25; 10 lbs., $2.50; 20 lbs., $4.50. Smoking—5 lbs., $1.25; 10 lbs., $2.00; 20 lbs., $3.50. FARMERS' UNION MAYFIELD, KY.

Firemen, Brakemen beginners, $150-$250 monthly; railroads everywhere (which position?) Railway Association, Desk W-16, Brooklyn, N. Y.

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Classified Advertising Rates

Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

S. C. BLACK MINORCA AND BARRED ROCKS hatchery eggs and chicks for sale. Minorca hens, weight 7 and 8 lbs., and lay largest chalk-white eggs of any fowl; eggs from finest selected Minorcas and Rocks, $2, setting 15 eggs for $8; Minorca Chick, $20; Rock Chick, $18. E. B. TAYLOR, Yama Farms, Napanoch, Ulster Co., N. Y.

BRED TO LAY—Day-old chicks, S. C. White Leghorns: May, $15 per 100; June, $12 per 100. Barred Rocks, Reds, White Wyandottes: May, $18 per 100; June, $14 per 100. Eggs at $5 per 100. Giant Pekin Duckling, 25 cents each. Eggs, $1.50 per 11. All orders postpaid. P. H. PORAY, R. 2, Williamson, N. Y.

FOR HIGH EGG PRODUCTION—Buy your S. C. White Leghorn hatching eggs from best of stock bred and culled for vigor, size and egg laying qualities; $10 per 100. GEO. H. PRICE, Box 450, Stamford, N. Y.

ORIGINAL D. W. YOUNG STRAIN Single Comb White Leghorns. Strictly exhibition stock. Cocks and Cockerels, $5 and $10 each. C. O. D. if desired. Eggs, $3 per 15. MAPLE HILL FARM, Fort Plain, N. Y.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

TORMOHLEN'S EVERLAY BROWN LEGHORNS; strain holding world's record for best layers. Day-old chicks, hatching eggs reasonable. SUNNYSIDE FARM, Emporium, Pa.

BARRED PLYMOUTH COCKEREL—Thompson Strain, direct; 240 eggs yearly per hen. Free range; satisfaction guaranteed. At $5.00 each. JAS. SINSABAUGH, Pine Bush, N. Y.

BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

JERSEY BLACK GIANTS—Select hatching eggs, $5; utility stock, $3.50. Infertile eggs replaced. Write for prices on day-old chicks. Z. E. COMSTOCK, Fabius, N. Y.

BROTHER—We make a specialty of S. C. W. Leghorn Chicks, bred with the winter lay, farm raised; circular free. OAK HILL POULTRY FARM, Route 2 B, Bath, N. Y.

REAL RED REDS, Single Comb, pure-bred, hatching eggs; reduced prepaid price, fifteen, $1.50; fifty, $4. MEADOWBROOK FARM, Route 3, Lancaster, Pa.

WHITE CHINESE GEESE — Pure eggs for hatching; $2.50 dozen from old geese. All prize winners. Guarantee safe delivery. L. GOSS, Lockport, N. Y.

RHODE ISLAND REDS (both combs), famous Red Cherry strain. Eggs $2 per 15 delivered. SPRINGDALE FARM, Wyalusing, Pa.

BABY CHICKS—Barred Rocks, S. C. Buff Orpingtons and S. C. White Leghorns; African and Toulouse Geese. JOHN WORLEY, Mercer, Pa.

ROSE-COMBED BROWN LEGHORNS—Big hens, layers; 30 eggs, $3.50; postpaid. Write wants. 23d year. H. LAMSON, Cameron, N. Y.

SINGLE COMB BLACK MINORCAS, Great layers, Cockerels and Hens eggs, 15, $2; 100, $8. THOMAS EBERSOL, Carrollton, O.

PEARL GUINEAS. White Wyandotte, Mammoth Pekin Duck Eggs. LAURA DECKER, Stanfordville, N. Y.

$8 PER 100 BABY CHICK EGGS; $1 setting. Catalogue — 12 leading varieties. EMPIRE HATCHERY, Seward, N. Y.

PEKIN DUCKS, $3.50 each; pen Jersey Black Giants, $25; hatching eggs, $3.50 per 15 up. A. MORITZ, Rahway, N. J.

HATCHING EGGS—From heavy-laying S. C. Buff Leghorns; $2 per 15; $10 per hundred. SILAS HUNT, Penn Yan, N. Y.

PARDEE'S PERFECT PEKIN DUCKLINGS. Eggs, catalogue. ROY PARDEE, Islip, N. Y.

TWO PENS WHITE WYANDOTTES. LAURA DECKER, Stanfordville, N. Y.

BEES

HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, Roxbury, N. Y.

TURKEYS

TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point, Ohio.

NARRAGANSETT TURKEY EGGS—10, $6. M. V. CALDWELL, Lisbon, Ohio.

SEEDS AND NURSERY STOCKS

RASPBERRIES—Red, 15c doz., $1.20—100, $10 — 1,000; Columbian, 50c doz., $4 — 100. Plum Farmer, 30c doz., $2.25—100. Strawberries—Early Ozarl, Big Valley, Jessie Medium, Big Joe Gaudy, late, 15c doz., $1.20—100, $11—1,000. Americus Everbearing, 25c doz., $1.75—100. Few Gooseberry Roses—5c each; Dahlias, mixed, Mock Orange, Rhubarb, Concord Grapes, 10c each. Big Four Oats, Heavyweight, Sure Cropper, took 2d premium Erie Produce Show, 99% germination, $1 bu. Improved White Cap Yellow Dent Corn, ripens every year, 96% germination, $2 bu. Early Rose Potatoes, $2 bu. Sacks free. F. O. B. Albion. No catalogues. W. H. COOLEY, R. No. 2, Albion, Pa.

BULBS CREATE BEAUTY—Dahlias whose labels have become detached, 1 dozen $2. These bulbs are from established varieties retailing from 50 cents to $15. 1 dozen labelled, mixed, $4. Gladioli sold out. A. D. FIELD, Dahlia & Gladioli Grower, R. F. D., Long Branch, N. J.

MAHOGANY-LEAVED CANNAS—$1.00 per dozen, postpaid; 2-year Argenteuil Asparagus, $1.60 per hundred postpaid; first-class stock. GEO. GASSETT, Putney, Vt.

SURPLUS CANNAS, DAHLIAS—Per dozen, $1; Gladiolus, per dozen 25 cents; assorted tubers from 100 kinds. SHELLROAD GREENHOUSES, Colgate, Md.

CERTIFIED RUSSET RURAL SEED POTATOES, average yield, 306 bushels per acre. Write for circular. HAROLD F. HUBBS, Kirkville, N. Y.

MILLIONS OF CELERY, cabbage and cauliflower plants for June delivery. Booking orders now. WELLS M. DODDS, North Rose, N. Y.

RAW FURS AND TRAPPERY

LET US TAN YOUR HIDE—Cow and Horse hides for fur coats and robes. Cow and Steer hides into Harness and Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

SELLING SILVER FOXES—$5 monthly. SILVERBAR ASSOCIATION, 143E, Dracut, Mass.

SWINE

DUROCS—Not the coming hog, but the one that is here. Fall Gilts—open or bred. Two fall boars. Spring pigs. D. H. TOWNSEND & SONS, Interlaken, N. Y.

REGISTERED CHESTER-WHITE PIGS—Big type from large litters. Best blood lines. Prices reasonable. J. B. KIMMEY, East Greenbush, N. Y.

FOR SALE—Pure-bred Yorkshire pigs, 8-10 weeks old. A fine bunch from large imported stock. LUCERNE FARM, Skaneateles, N. Y.

HORSES

FOR SALE—Pure-bred Belgian horses, 4-yr. bay mare, 4-yr. roan mare, and mares in foal; sound, good heavy stock. Also team of bay grade mares 4-yr. If interested, write WM. MARSHALL, Aurora, N. Y.

CATTLE

FOR SALE—Beautiful Holstein bull calf, ten weeks old, 9/10 white, straight and fine, large. From long line of heavy producers on both sides. Has 12 graud-dams that made average of 1,035lb butter in year. Sire's dam averaged 40lb—305 days, and carried calf 7 months of that time. Satisfaction guaranteed. Price, $50, registered and transferred. Crated and shipped. WOODSIDE STOCK FARM, Remsen, N. Y.

FOR SALE — Bull calves, age two to five months, from good Sadie Vale-Veeman dams. Sired by King Mutual Korndyke 8th, whose two nearest dams average 34 pounds butter for seven days and 1,256 for one year. SOLON W. RUSSELL, Poland, N. Y.

PURE-BRED AYRSHIRE bull calves, $25. Herd clean by Federal test. HARRINGTON BROS., R. 5, Canton, N. Y.

REAL ESTATE

330-ACRE FARM—¼ mile to depot, stores, post office; good buildings; electric lights, running water, 200 acres tillable river flats; 130 acres wood land; good blue stone quarry; fine fruit; tractor and full equipment, farm machinery. Bargain if sold at once. HARLEY BOGART, Downsville, N. Y.

VALLEY DAIRY FARM—Two hundred and fifty acres; half million feet timber; modern barn holds 60 head stock, silo, horse barn, calf barn, grainery. 12-room house, half mile to town, state road. 20 Federal tested Holsteins, horses, tools. Price moderate, terms reasonable. Address BOX 68, Whitney Point, N. Y.

FOR SALE — At a bargain, 160 acres, fair buildings, never-failing water, 2 orchards, 71 acres under good state of cultivation, balance in 2d growth timber and pasture; will include stock and crops. Terms reasonable. JOHN WOKASIEN, Fertigs, Venango Co., Pa.

FOR SALE—Well stocked and equipped dairy farm on improved road, 10 minutes' drive to city market. Established business. For particulars write H. MORTON BENDER, So. Oil City, Pa.

MALE HELP WANTED

WANTED — An experienced handy man to work on the grounds of a private sanitarium. Must know how to milk. LEVINE COTTAGE, Liberty, N. Y.

WANTED—Teamster and milker. EDGAR WRIGHT, Burlington Flats, N. Y.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, Mo., immediately.

HOUSEKEEPER WANTED—On Farm, middle aged, take full charge. Widow with one child no objection. Good reference. DAVID CRON, Flatbrookville, N. J.

DOGS AND PET STOCK

ENGLISH AND WELSH SHEPHERDS, 30 generations, breeding from proven Sires and Dams from natural herders, 4 months old pups working with old dogs. Order early. GEORGE BOORMAN, Marathon, N. Y.

PEDIGREED COLLIE PUPS — Sable and white, nearly all white, also tri-color. Hatching eggs and baby chicks from bred to lay Single Comb White Leghorns. LESLIE KELLOGG, Clyde, N. Y.

HANDSOME PEDIGREED COLLIE PUPS—Satisfaction guaranteed. McCULLOCH, Farmingdale, N. J.

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OLD RELIABLE HEADQUARTERS: Dependable Egg-Cases, Fillers, Excelsior Cushions, Poultry Shipping Crates. Quality guaranteed. Prices reduced. STANDARD EGG CASE COMPANY, 60A West 114th Street, New York.

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PATCHWORK — Send fifteen cents for household package, bright new calicoes and percales. Your money's worth every time. PATCHWORK COMPANY, Meriden, Conn.

AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

MISCELLANEOUS

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

FERRET OUT THOSE RATS — We have white or brown, large or small, either sex; also bred females. List free. J. YOUNGER, Newton Falls, Ohio.

BEST EXTENSION LADDERS made, 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

LOOK AT THE EXPIRATION DATE ON YOUR ADDRESS LABEL

If your subscription has expired, you can show your appreciation of our courtesy in continuing to send you the American Agriculturist, by favoring us with your renewal at once.

There is no question as to your needing every coming issue of American Agriculturist, because some of the future numbers will contain facts that you would not willingly miss for any amount. The worst kind of economy in the world is to save $1 by not subscribing for American Agriculturist and thereby losing $10 or $100 or even $1,000 by not having the information that will be given in the next 52 issues of American Agriculturist.

If you were a doctor, you would find the best medical journal indispensable. If you are a real farmer who is out for 100% success and not merely a bare living, you owe it to yourself and family to read every coming issue of the American Agriculturist so that you can keep abreast of the times.

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It has probably been merely an oversight if you are in arrears in your subscription. Before you forget it, mail your renewal for one of the above bargains and show your heart is still with us in our fight for your success and happiness.

MAIL THIS COUPON TODAY

AMERICAN AGRICULTURIST, 461 Fourth Ave., New York City.

I appreciate your sending me American Agriculturist after my subscription expired. Here is my check (or money-order) for renewal for.....years more.

NAME.....

ADDRESS.....

.....

Hang On To Your Dollar!

Recent Cases Handled by the Service Bureau

THE Chamber of Commerce of Montreal, Canada, has notified the Service Bureau that several of the silverware companies which had attracted attention through their spurious "premium" awards, have been prohibited from transacting their business through the mail. Just as this notice was received, a new firm cropped up, reported by one of our subscribers. It is undoubtedly a fake and our readers are warned against it.

Mrs. A. P. of New York received a postcard last October from The Community Sterling Company of Montreal, Canada, (note the use of a name resembling that of a reputable company in the silverware business). Mrs. P. was informed that she had won first prize in a puzzle contest and that if she would send a dollar she would receive a prize of seven pieces of tableware by return mail. She sent the money. Of course no "prize" ever arrived. Mrs. P. is out her money. The so-called company doubtless consisted of a clever rascal who took a post-office box, collected his gains until complaints began to come in from victims who had not received the promised articles, and then vamoosed before postal and government authorities were informed of the trouble and got after him.

Moral: Hang on to your dollar. If you get such an invitation to part from it, invest one cent in a postcard and request the "company" to ship the prize C.O.D. You will have 99 cents left for something more worth buying than this sort of experience.

MONEY IN FULL FOR EGGS

Now that eggs are pouring into the city markets for the heavy spring trade, there are bound to be losses avoidable perhaps, but sometimes inevitable. However, it does not console the shipper who invested money and time in his poultry to know that his crate was the only one of a carload to be smashed. What he wants then is his money back, and that as soon as may be.

The Service Bureau therefore, is constantly pressing the claims of subscribers to whom express companies owe money for lost or broken shipments. With the unusually heavy traffic on the roads now, it is not always easy to rush an adjustment case through, but we have managed recently to speed up several which threatened to drag along some time.

One represented the loss of two cases of eggs, sent from a Pennsylvania farm to a New York City merchant. They disappeared en route. A claim for each case was filed. First, came a check for $17.38 to pay for one; then, a few days later, the same amount for the other. The subscriber received $34.76 in all, with the loss of only a short space of time. Needless to say Mr. J., the proprietor of the farm, was delighted to get his money in full.

"DOING A WONDERFUL WORK"

"I thank you for your kindness and appreciate the wonderful work you are doing for your subscribers." Mr. Petrishin of Pennsylvania wrote this after he received a check collected by the Service Bureau. He said he had been trying to get the money from a mid-Western mail-order house for almost a year, and finally, in despair, turned it over to the Service Bureau to collect if they could.

Only five days after our letter went to the office of the company the check came back to Mr. Petrishin. The company wrote that the amount had been credited to the account of someone else and that they were very glad to make the adjustment at our request.

"$250 RECEIVED"

"I received the check of $250," wrote Mr. L. A. F. of New York, "and would be only too glad to pay you for your trouble. You can count on me as a steady subscriber in the future for the good old American Agriculturist."

Mr. F. had agreed to sell a new type of motor car in his locality. He paid $250 as a deposit, on the understanding that it was to be returned within a year if he resigned. Only a few months later, Mr. F's other business interests made it necessary for him to resign and he asked for a return of his deposit.

The firm at first ignored his letter, then made the excuse that the president was away. At this point, he placed the matter in the hands of the Service Bureau, which took up the matter directly with the New York headquarters of the firm.

Result, a check for the full amount, received and acknowledged within a week. Mr. F. expressed his deep appreciation in the letter from which we have quoted.

KNITTING COMPANY SETTLES

The check was for $4.01 and it represented an effort of as many months to collect it. Mrs. M. F. of New York had sent baby sacques to a knitted wear company, but repeated letters brought no returns.

Then the Service Bureau took the matter up and found that a complete reorganization was going on in the company, against which several other claims were pending. It seemed for a while as though all trace of the different cases had been lost, but a little patience and persistence finally won out. Mrs. F. received her check and the other cases are well on the way to being settled.

THE RAILROAD MADE GOOD

A check for $12 in full settlement for a shipment of pears was received by Mr. Albert Ink of Pennsylvania, after the Service Bureau took the matter in hand. The shipment was damaged by the railroad, but upon our bringing the matter to the attention of the proper authorities, they were very glad to make this settlement, which Mr. Ink considered a perfectly fair one.

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Ne Plus Ultra Stars and Stripes

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For particulars apply

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Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.50 each; 8 to 9 weeks old, $7.50 each.

Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.

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REGISTERED O. I. C. AND CHESTER WHITE PIGS. E. P. ROGERS, WAYVILLE N. Y.

The Valley of the Giants—*By Peter B. Kyne*

"WELL Rondeau," Bryce hailed the woods-boss cheerfully, "I see you have quite recovered. No hard feelings, I trust."

"By gar, she don' pay for have hard feelings wiz you, M'sieur," Rondeau answered bluntly. "We have one fine fight, but"—he shrugged—"I don' want some more."

"Yes, by gar, an' she don' pay for cut other people's trees, M'sieur," Bryce mimicked him. "I shouldn't wonder if I took the value of that tree out of your hide."

"I t'enk so, M'sieur." He approached Bryce and lowered his voice. "For one month I am no good all ze tam. We don' fight some more, M'sieur. And I feel ashame' for dose Black Minorca. Always eet is ze knife or ze club—and now ze rifle. *Cochon!* W'en I fight, I fight wiz what *le bon Dieu* give me."

"You appear to have a certain code, after all," Bryce laughed. "You're sporty in your way, you tremendous scoundrel!"

"Mebbeso," Rondeau suggested hopefuly, "M'sieur likes me for woods-boss?"

"Why what's the matter with Pennington?"

The color mounted slowly to the woods bully's swarthy cheek. "Mademoiselle Summnair, he's tell me pretty soon be boss an' stop all thees fight. An' then goodbye Jules Rondeau. Thees country—I like him. I feel sad, M'sieur, to leave dose beeg trees." He paused, looking rather wistfully at Bryce. "I am fine woods-boss for somebody," he suggested hopefully.

"You think Miss Sumner dislikes you then, Rondeau?"

"I don' theenk. I know." He sighed. "I am out of zee good luck now," he murmured bitterly. "Everybody, she hate Jules Rondeau. Colonel—she hate because I don' keel M'sieur Cardigan; Madamoiselle, he hate because I try to keel M'sieur Cardigan; M'sieur Sexton, she hate because I tell her thees mornin' she is one fool for fight M'sieur Cardigan."

Again he sighed. "Dose beeg trees! In zee woods, M'sieur, I feel—here!" And he laid his great calloused, hairy hand over his heart.

"That infernal gorilla of a man is a poet," Buck Ogilvy declared. "I'd think twice before I let him get out of the country, Bryce."

"'Whose salt he eats, his song he sings,'" quoth Bryce. "I forgive you, Rondeau, and when I need a woods-boss like you, I'll send for you."

CHAPTER XXXI

AT eleven o'clock Saturday night the deputy United States marshal arrived in Sequoia. Upon the advice of Buck Ogilvy, however, he made no attempt to service that night. At eight o'clock Sunday morning, however, Bryce Cardigan drove him down to the crossing. Buck Ogilvy was already there with his men, superintending the erection of a huge derrick close to the heap of obstructions on the crossing. Sexton was watching him uneasily, and flushed as Ogilvy pointed him out to the marshal.

"There's your meat, Marshal," he announced. The marshal approached and extended toward Sexton a copy of the restraining order. The latter struck it aside whereupon the deputy marshal tapped him on the shoulder with it. "Tag! You're out of the game, my friend," he said pleasantly.

As the document fluttered to Sexton's feet, the latter turned to Jules Rondeau. "I can no longer take charge here, Rondeau," he explained. "I am forbidden to interfere."

"Jules Rondeau can do ze job," the woods-boss replied easily. "Ze law, she have not restrain' me."

The deputy marshal handed Rondeau a paper, at the same time showing his badge. "You're out, too, my friend," he laughed. "Don't be foolish and try to buck the law. I have one of these little restraining orders for every able-bodied man in the Laguna Grande Lumber Company's employ."

A gleam of pleasure, not unmixed with triumph, lighted the dark eyes of the French-Canadian. "I tol' M'sieur Sexton she cannot fight M'sieur Cardigan and win," he said simply.

"Shut up," Sexton roared. Rondeau shrugged contemptuously, turned, and with a sweep of his great arm indicated to his men that they were to go; then, without a backward glance, the woods-boss strode away in the direction of the Laguna Grande mill. Arrived at the mill-office, he entered, took down the telephone, and called up Shirley Sumner.

"Mademoiselle," he said, "Jules Rondeau speaks to you. I have for you ze good news. Bryce Cardigan, she puts in the crossing to-day. One man of the law she comes from San Francisco with papers, and M'sieur Sexton say to me: 'Rondeau, we are whip.' Deesmess your men. So I have deesmess doze men, and now I deesmess myself. Mebbeso bimeby I go to work for M'sieur Cardigan. For Mademoiselle I have no weesh to make trouble to fire me. I queet. I will not fight dose dirty fight some more. *Au revoir, mademoiselle.* I go."

And without further ado he hung up.

"What's this," Sexton demanded. "You're going to quit? Nonsense, Rondeau!"

"I will have my time, M'sieur," said Jules Rondeau. "I go to work for a man. Mebbeso I am not woods-boss for heem, but—I work."

"Then you'll wait till pay-day for it, Rondeau. You know our rules."

Jules advanced until he towered over the manager. "I tol' M'sieur I would have my time," he repeated once more. "Is M'sieur deaf in zee ears?" He raised his right hand, much as a bear raises its paw.

Without further protest Sexton opened the safe, counted out the wages due, and took Rondeau's receipt.

"Thank you," M'sieur," the woods-boss growled as he swept the coin into his pocket. "Now I work for M'sieur Cardigan; so, M'sieur, will have zee switch-engine weeth flat-cars and wrecking-car. Doze trash on crossing—M'sieur Cardigan does not like, and by gar, I take heem away. I am Jules Rondeau, and I work for M'sieur Cardigan. La la, M'sieur!" The great hand closed over Sexton's collar. "Not zee pistol—no, not for Jules Rondeau."

AS easily as a woman dresses a baby, he gagged Sexton, laid him gently on the floor and departed, locking the door behind him and taking the key.

In the round-house he found the switch-engine crew waiting for steam in the boiler. The withdrawal of both locomotives had caused a glut of logs at the Laguna Grande landings, and Sexton was catching up by sending the switch-engine crew out for one train-load, even though it was Sunday. The crew had been used to receiving orders from Rondeau; hence at his command they ran the switch-engine out of the roundhouse, coupled up the two flat-cars and the wrecking-car, and backed down to the crossing. Upon arrival, Jules Rondeau leaned out of the cab window and hailed Bryce. "M'sieur," he said, "do not bozzer to make zee derrick. I have here all you need; pretty soon we lift him off zee crossing, eh, M'sieur Cardigan?"

Bryce stepped over to the switch-engine and looked up at his late enemy. "By whose orders is this train here?" he queried.

"Mine," Rondeau answered. "M'sieur Sexton I have tie like one leetle pig and lock her in her office. I work now for M'sieur."

And he did. He proceeded to direct operations like the born leader of men that he was. With his late employer's gear he fastened to the old castings and the boiler, lifted them with the derrick on the wrecking-car, and swung them up and around onto the flat-cars. By the middle of the afternoon the crossing was clear. Then the Cardigan crew fell upon it while Jules Rondeau ran the train back to the Laguna Grande yards, dismissed his crew, returned to the mill-office, and released the manager.

"You'll pay through the nose for this, you scoundrel," Sexton whimpered.

Rondeau replied imperturbably, "who is witness Jules Rondeau tie you up? Somebody see you, no? I guess you don' feex me. *Sacré!* I guess you don' try."

CHAPTER XXXII

COLONEL PENNINGTON'S discovery at San Francisco that Bryce Cardigan had stolen his thunder was the hardest blow Seth Pennington had received throughout thirty-odd years.

On Tuesday he returned to Sequoia. Sexton related to him in detail the events which had transpired since his departure, but elicited nothing more than a noncommittal grunt.

"There is one more matter, sir," Sexton continued apologetically. "Miss Sumner yesterday instructed me to notify the directors of the Laguna Grande Company of a special meeting of the board, to be held here at two this afternoon. In view of the impossibility of communicating with you, I conformed to her wishes."

"What the devil do you mean, Sexton, by conforming to her wishes? Miss Sumner is not a director of this company." Pennington's voice was harsh and trembled with apprehension.

He rose and commenced pacing up and down his office. "You fool!" he snarled. "Get out of here and leave me alone."

Sexton departed promptly. It lacked five minutes of two. He passed Shirley Sumner in the general office.

"Shirley," Pennington began in a hoarse voice as she entered his office, "what is the meaning of this?"

"Be seated, Uncle Seth," the girl answered quietly. "If you will only be quiet and reasonable, perhaps we can dispense with this directors' meeting which appears to frighten you so."

He sat down promptly, a look of relief on his face.

"I scarcely know how to begin, Uncle Seth," Shirley commenced sadly. "It hurts me terribly to be forced to hurt you, but there doesn't appear to be any other way out of it. I cannot trust you to manage my financial affairs in the future—this for a number of reasons, the principal one being——"

"Young Cardigan," he interrupted in a low voice.

"I suppose so," she answered, "although I did think until very recently that it was those sixteen townships of red cedar in British Columbia in which you induced me to invest four hundred thousand dollars. You will remember that you purchased that timber for me from the Caribou Timber Company, Limited. You said it was an unparalleled investment. Quite recently I learned—no matter how — that you were the principal owner of the Caribou Timber Company, Limited! Smart as you are, somebody swindled you with that red cedar."

She gazed upon him steadily; presently his glance sought the carpet. Shirley continued:

"You had erected a huge sawmill and built and equipped a logging-road before you discovered you had been swindled. So you decided to unload your white elephant on somebody else. I was the readiest victim."

"I had my back to the wall," he quavered. "I was desperate. You had the money—more money than you knew what to do with—and with the proceeds of the sale of those cedar lands, I knew I could make an investment in California redwood and make big money for both of us."

"You might have borrowed the money from me. You know I have never hesitated to join in your enterprises."

"This was too big a deal for you, Shirley, I had a vision. I could see incalculable riches in this redwood empire. I dreamed of the control of California redwood; and if you will stand by me, Shirley, I shall yet make my dream come true—and half of it shall be yours. It has always been my intention to buy back from you secretly and at a nice profit to you that Caribou red cedar, and with the acquisition of the Cardigan properties I would have been in position to do so. Why, that Cardigan tract in the San Hedrin which we will buy in within a year for half a million is worth five millions at least."

She silenced him with a disdainful gesture. "You shall not smash the Cardigans," she declared firmly.

"I shall——" he began, but he paused abruptly.

"You are devoid of mercy, of a sense of sportsmanship. Now, then, Uncle Seth, listen to me: You have twenty-four hours in which to make up your mind whether to accept my ultimatum or refuse it. If you refuse, I shall prosecute you for fraud and a betrayal of trust as my father's executor on that red-cedar timber deal."

HE brightened a trifle. "I'm afraid that would be a long, hard row to hoe, my dear, and of course, I shall have to defend myself."

"In addition," the girl went on quietly, "the county grand jury shall be furnished with a stenographic report of your conversation with Mayor Poundstone. That will not be a long, hard row to hoe, Uncle Seth, for in addition to the stenographer, I have another very reliable witness, Judge Moore. Your casual disposal of my sedan will be hard to explain in view of the fact that Bryce Cardigan managed to frighten Mr. Poundstone into returning the sedan while you were away. And if that is not sufficient for my purposes, I have the sworn confession of the Black Minorca that you gave him five hundred dollars to kill Bryce Cardigan. Your woods-boss, Rondeau, will also swear that you approached him with a proposition to do away with Bryce Cardigan. I think, therefore, that you will not disagree with me when I suggest that it would be better for you to leave this country."

His face had gone gray and haggard. "I can't," he murmured, "I can't leave this great business now. Without my hand at the helm, things will go to smash."

"I'll risk that."

The Colonel raised his glance. She met it with firmness, and the thought came to him: "She is a Pennington!" Hope died out in his heart. He began pleading in maudlin fashion, but the girl was obdurate.

"I am showing you more mercy than you deserve—you to whom mercy was ever a sign of weakness. There is a gulf between us, Uncle Seth—a gulf which, because of my recent discoveries, has widened until it can no longer be bridged."

He wrung his hands in desperation; with hypocritical endearments he strove to take her hand, but she drew away from him. "Don't touch me," she cried sharply and with a break in her voice. "You planned to kill Bryce Cardigan! And for that I shall never forgive you."

She fled from the office, leaving him cringing on the floor. "There will be no directors' meeting, Mr. Sexton," she informed the manager as she passed

(*Continued on page* 407)

ANNOUNCING OUR NEXT SERIAL: THE BROWN MOUSE

WHEN Herbert Quick, from the depths of his experience with rural problems and his admiration for the people who are solving them, wrote "The Brown Mouse" he laid the scene of his story in a typical American rural community and drew upon life for his characters.

The result is a story which every farm paper in the country has wanted to obtain for its readers. American Agriculturist is therefore extremely happy to announce that the first serial release of this now famous story will be given through these pages.

The story will be illustrated by photographs from the moving picture made under the supervision of the American Farm Bureau Federation.

And what is a Brown Mouse? Read the story and see!

How To Make A "Reflex" Radio Set

A Set That Is Well Suited To The Fan Who Likes To Experiment

By BRAINARD FOOTE

WHEN an impulse from a radio broadcasting station lands at the receiving aerial, it sets up currents vibrating in it at a frequency far above that to which the human ear will respond. For instance, a wave length of 300 meters means a frequency of one million per second, and since the upper limit of human audibility is about 15,000 vibrations per second, such a frequency can not be heard at all.

It is the function of the crystal detector or tube detector to so group the oscillations, that they are reduced to a frequency within audibility, or where the incoming wave carries voice variations as well, to bring these into the phones for understandable reproduction.

Where the impulses are weak, and fail to affect the tube or crystal detector, it is utterly impossible to add any form of audio frequency amplifier such as the "two stage" type recently described, in order to magnify the sounds. What, then, can we utilize to increase the strength of the incoming radio frequency impulses so that they may affect our detector?

Parts for Reflex Circuit

Vario-coupler.
23 plate variable condenser.
Audio transformer.
Radio transformer.
Crystal detector.
Tube socket.
Amplifying tube.
"A" battery for tube.
45 volt "B" battery.
300 ohm potentiometer.
Rheostat for tube (5 to 6 ohms for WD-11, UV 201, UV 201 A, 30 ohms for UV 199).
3-.001 fixed condensers.
2-Switch knobs and points for coupler.

There is a type of amplification known as "radio frequency amplification" which precedes the crystal or tube detector in order of sequency, and whose function it is to bring up the strength of very feeble impulses to a point where the detector is enabled to operate. The amplification takes place through one or more circuits and tubes which are not tuned sharply, but merely approximately, so that the circuit will respond over a fairly wide range of wave lengths without adjustment of the radio frequency amplifier itself. It is of course essential that the antenna and secondary circuits be tuned in the usual manner, by means of a vario-coupler, or honeycomb coils, or by any other means decided upon.

It is an abrupt step for the radio fan who has become acquainted with tube detection and audio frequency amplifiers, to add two or three stages of radio frequency to his set. "R. F.", as it is popularly termed, is a ticklish proposition to handle, and therefore it is advisable for anyone interested in learning about it to attempt some sure and certain variety of this interesting method of increasing the distance over which broadcasting may be received before starting off with the regular "R. F." hook-ups.

Perhaps the easiest scheme is that presented in the Reflex circuit. Not only has this advantages as far as increased distance and greater strength of signals are concerned, but it is also economical since one tube may be employed to do the work of two nearly as effectively. In the accompanying plan diagram is given the single tube reflex circuit as it is to-day adaptable for broadcast work. There is no question that it is superior in most respects to the average single to be regenerative receiver both for distance and for volume. And not only that, but the insertion of the crystal as the detecting medium adds wonderfully to the tonal quality of the music and speech.

It will be noted that the tuning of the antenna circuit is accomplished in the usual manner by the primary winding of the vario-coupler with its two sets of switch points. The secondary winding is tuned by a variable condenser of about 23 plates (.0005 mfds.). Through the fixed condenser in the grid circuit the "R. F." impulses are impressed upon the grid of the tube and thence amplified at radio frequency. It is essential that the tube be of the amplifier type for such work, and the most suitable tubes at present available are the UV 199, the UV 201 and the UV 201 A. The WD-11 is fairly satisfactory but has more tendency than the others to do some of the detecting work.

Now comes the "trick" of the reflex. From the plate, the amplified radio frequency impulses pass through the primary of the radio frequency transformer. This little instrument is something like a vario-coupler, consisting of two windings placed upon a very finely laminated core of iron. It is the function of the core to "broaden" the tuning of the transformer or coupling device so that it is not necessary to adjust the wave length of it between the limits used by broadcasting stations. These are usually between 250 and 550 meters.

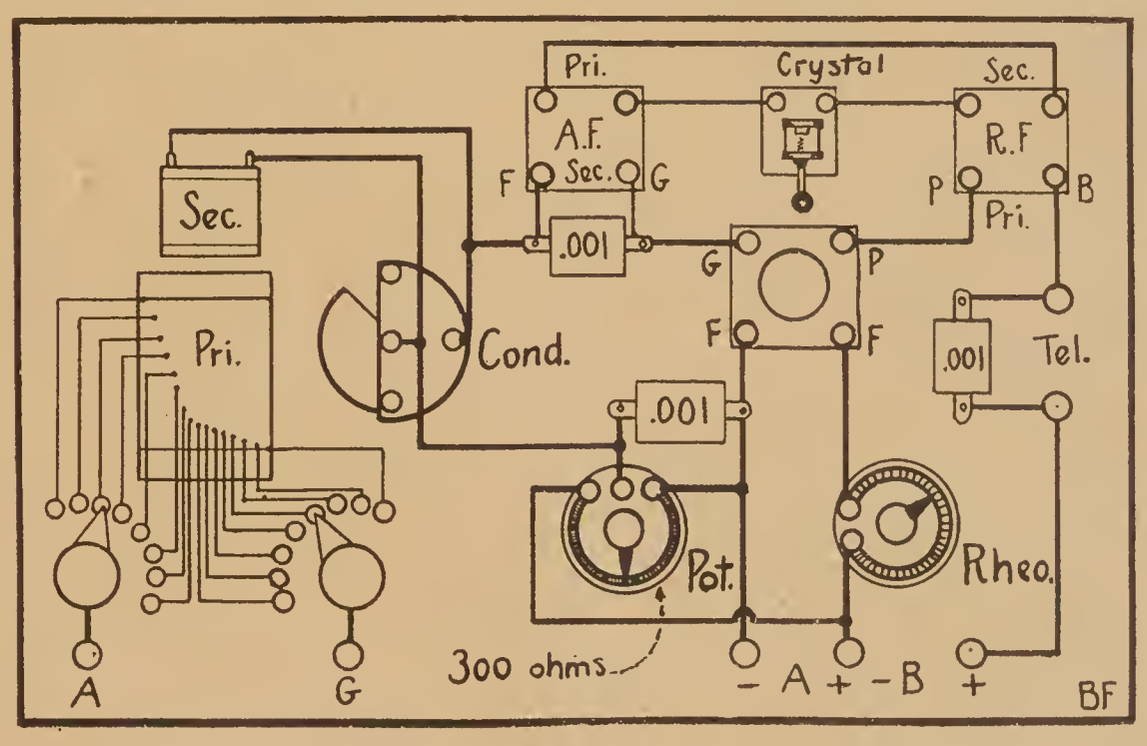
The by-pass condenser across the phones is needed to "pass by" the "R. F." oscillations along through the "B" battery and filament. As in the case of a vario-coupler, the current in the primary of the "R. F." transformer sets up a current in the secondary. Remember—this is still at radio frequency. Here is where the crystal comes into play. It is the detector, and it does its work very efficiently and clearly, too.

By the time the current reaches the primary winding of the audio frequency transformer, with whose operation most of us are familiar, the current has been "rectified" or brought within the range of human hearing. Again it is amplified, this time at an audible frequency, and the impulses once more strike the grid. Now the tube operates as an audio amplifier, and the results are most pleasing. Loud, and clear, far exceeding those obtainable with the ordinary one tube receiver.

How about the potentiometer? This is inserted for the purpose of applying a little voltage to the grid of the tube through the coupler winding. It is thus that the tube can be made to "oscillate" and produce almost as great an effect as that noted when a regenerative receiver is brought nearly to the point of oscillation. Thus it can be truly said that the reflex circuit not only amplifies, doubly, and detects, but also permits regeneration. And all with one tube.

One should be careful in purchasing apparatus for the circuit to select only the very best. A fairly good gauge of quality is the price, and the total cost of the outfit, not including phones, batteries and tubes, is approximately $15. Including everything required from aerial to ground, the cost runs up to about $35 or $40.

In wiring the set, the parts should be placed in such a manner that connections are short. Parallel wiring should be avoided if possible and the plan layout followed as much as possible. If it be found that the circuit functions fairly well with the cat whisker off the crystal, the leads from the secondary of the radio frequency transformer should be switched around to find the proper direction for current in that winding. The "A" battery is connected as indicated, and about 45 volts of "B" battery used with the tube. It should be pointed out, in closing, that an additional stage of audio frequency amplification, with which the same tube, "A" and "B" batteries may be used, will give results sufficient for the operation of the loud speaker ordinarily reserved for use with a three tube outfit.



Here is the layout of the Reflex Set, which is well adapted for distance work.

The Valley of the Giants

(*Continued from page* 406)

through the general office. "It is postponed."

CHAPTER XXXIII

THAT trying interview had wrenched Shirley's soul to a degree that left her faint and weak. She at once set out on a long drive, in the hope that before she turned homeward again she might regain something of her customary composure.

Presently the paved street gave way to a dirt road and terminated abruptly at the boundaries of a field that sloped gently upward—a field studded with huge black stumps showing dismally through coronets of young redwoods. From the fringe of the thicket the terminus of an old skid-road showed and a signboard, freshly painted, pointed the way to the Valley of the Giants.

Parking her car by the side of the road, she alighted and proceeded up the old skid, now newly planked. On over the gentle divide she went and down toward the amphitheatre where the primeval giants grew. And as she approached it, the sound that is silence in the redwoods—the thunderous diapason of the centuries—wove its spell upon her; quickly, imperceptibly there faded from her mind the memory of that grovelling Thing she had left behind in the mill-office, and in its place there came a subtle peace.

A cluster of wild orchids pendent from the great fungus-covered roots of a giant challenged her attention. She gathered them. Farther on, in a spot where a shaft of sunlight fell, she plucked an armful of golden California poppies and flaming rhododendron, and with her delicate burden she came at length to the clearing where the halo of sunlight fell upon the grave of Bryce Cardigan's mother. There were red roses on it, and these she rearranged to make room for her own offering.

"Poor dear!" she murmured audibly. "God didn't spare you for much happiness, did He?"

(*Continued next week*)

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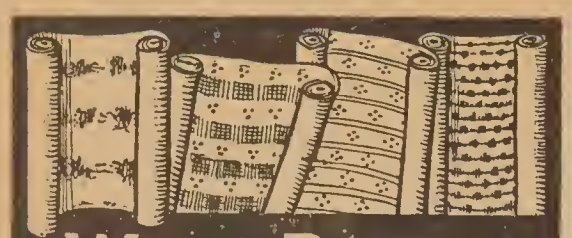

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Removes Dandruff—Stops Hair Falling
Restores Color and Beauty to Gray and Faded Hair
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Clothes For the Summer

Whether You Buy or Sell, Here ar Smart New Styles

SOMETHING new is the apron frock, No. 1751, which slips over the head and ties about the waist, giving a neat effect but still being comfortable to work in. The design may be made up in gingham, voile, batiste or lawn, with embroidery on the pockets.

Pattern No. 1751 cuts in sizes 14 and 16 years, 36, 38, and 40 inches bust measure. For size 36, 4 yards of 40-inch material with ⅞ yards of 36 inch contrasting is required. Price, 12c. Transfer pattern 626 (in blue only) 12c. extra.

A soft frock like this of voile, batiste or fancy lawn is certain to find a place in every woman's selection of Summer frocks. The waist just blouses the tiniest bit, for becomingness, and the sash ties in a perky bow to the side, for style. No. 1724 comes in sizes 16 years, 36, 38, and 40 inches bust measure and for the 36-inch size 3⅛ yards of 36-inch material with 1 yard of 36 inch contrasting material is required. And most important of all—it can be made for little over a dollar. Doesn't that appeal to your sense of economy? Pattern, 12c.

The summer catalogue is full of pretty, practical designs like these. They show the summer girl at her best, but do not forget the older woman, the teen-age girl or the children of all ages.

A copy of this book is only 10c. In addition to the pattern designs, there are dressmaking hints, photographs of made-up garments and other interesting features.

In ordering patterns, be sure name, address and numbers are clearly written and the proper amount is enclosed. Address Pattern Department, American Agriculturist, 461-4th Ave., New York.

PICTURE HANGING POINTS

One good picture is not only better than many poor ones, but is likely to be better than many good ones, hung helterskelter. The Japanese hang but one picture on the wall at one time, and so enjoy it without being distracted by others near it.

The picture should seem to be part of the wall, not merely unconnected ornamentation, the home specialists at Cornell point out. The size and shape of the wall should be considered; if the space is long and narrow, a long and narrow picture should be used. It is hard to find a satisfactory place for a round or oval picture. A square frame is always easier to place.

A large picture needs to be hung in relation to the furniture; a table, chair or desk should be placed against the wall under it. Pictures should be hung flat against the wall and suspended from the moulding by two vertical wires.

The frame is supposed to relate the picture to the wall. Gilt frames almost never do this, but rather attract attention themselves, unless they have been much toned down. A frame slightly tinted in colors which repeat the colors of the picture and also of the wall is the best.

In general, the frame should be as dark as the middle tone in the picture. Most pictures are now framed without mats. If a mat is desired, black or white should never be used; it should match the tone of the frame and of the picture.

A SMART DRESS TO BUY

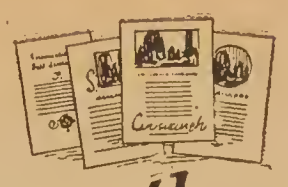
The fashion editor found this dress of mercerized cotton pongee and because it was good wearing material, made on simple lines and in a style becoming to all women, she chose it for American Agriculturist readers. The dress has diamond motifs embroidered in the popular bright colors. The neck and slashed kimona sleeves are piped, and the full length panels blouse at waist and skirt hem.

The dress is R. W. 21. It comes in natural tan or copenhagen blue and in sizes from 34 to 46 inches bust measure (state waist and hip measure also). Price, postage prepaid, $5.98.

Anything bought through the fashion editor may be returned to the store from which it comes for an exchange or refund if not satisfactory. Make out checks or money orders to the American Agriculturist. Be sure to give full name, address, size and color desired.

A HANDY KITCHEN DEVICE

The most pleasing and helpful thing in my kitchen is an enamel mixing bowl. It is so much lighter than a crockery ware bowl. One of mine is white enamel and holds six quarts, so that is ample for large amounts. The other is a three quart bowl. There is only one trouble with them—they are always on hand at dishwashing time, being used so often! These bowls can be had in many different sizes.—D. W.



Give a thought to Advertising

Baby chicks have become travelers. And all because of advertising.

In the old days, when a baby chick was hatched he spent his life right where he first saw the light of day, or anyway within a few miles of the place. But like most everything else, the life of baby chicks has changed and broadened with advancing times and methods. And the baby chicks of to-day can thank advertising for an opportunity to see something of their native country.

The chick born in Ohio is just as likely as not to spend its advancing years in New York or Massachusetts and vice versa. In fact he can go any place within a 72-hours ride of his birthplace.

* * * * * * *

Take a good look at the last pages of the American Agriculturist. What do you see? Maybe thirty advertisements of baby chicks. Advertisements from every part of the country east of the Mississippi. Probably your flock of hens is made up of chickens hatched as far as a thousand miles from your home.

So certainly advertising plays an important part in the lives of baby chicks. And a rapidly increasing part. In the last five years poultry — and especially baby chick — advertising has grown by leaps and bounds. Old copies of the American Agriculturist show only a very few poultry ads. Now they cover over a whole page. And the number is increasing every month. The poultry raiser's market has broadened from his local vicinity to over half of the country. He can raise his chicks in Maine and sell them in Florida. And advertising has made this possible.

* * * * * * *

Advertising has broken down the walls of distance. It has made neighbors of the rice growers of Mississippi and the potato growers of Maine. They shake hands through the columns of the American Agriculturist and other papers, profiting by their closeness and friendship.

* * * * * * *

Every little advertisement is equal to a whole army of messenger boys. One advertisement in the American Agriculturist is 120,000 messengers going to 120,000 different homes to take its message to the readers. And when you can send your message to so many people at the same time, you're bound to get results.

* * * * * * *

If advertising plays such an important part in the lives of poultry — and especially baby chicks—then think of what advertising means to us human beings. Just as much more at least as we are more important than baby chicks. And just as advertising has given baby chicks a chance to travel and see the country, so has it given the farmer a chance to take an increasingly active and profitable part in affairs of the whole nation. So who can deny that it pays to give a thought to advertising?

Advertising Manager

That Graduation Picture

Help the Photographer to Do You Justice

HUNDREDS of pictures of graduates from grammar, high school, and college will be taken this spring, and it is a safe guess that fully half of them will be voted "perfectly terrible," "a libel" and other unkind things by the subjects and their friends. But it will not always be the photographer's fault. There are simple rules for sitters to follow, which, if disregarded, may spoil the best effort of the most expert photographer.

Children should be simply dressed—the more simply the better. Light or white clothing is desirable. The hair should not be "slicked down" nor yet curled until frizzy. Sometimes a little disorder is most natural.

Don't make your child self-conscious by talking beforehand as though photography was an ordeal. Don't instruct the child how to pose or what expressions to assume. If necessary to call the attention of the photographer to a stiff or unnatural expression, do so if possible without letting the child notice it. Never have more than one person besides the photographer in the room.

Girls and women should also follow the rule of simplicity in dress and pose. Dress the hair as it is usually worn; don't use a net. Sit or stand comfortably; if you are in a strained position the picture will surely show it. Don't wear a dress of a decided figured material, one with many ruffles or any other pronounced feature that may soon go out of style. A smiling picture, though often attractive at first, is apt to grow wearisome after a while.

The stout woman should wear a dark gown, with downward lines, such as those given by long strings of beads or a lorgnette. Her thin sister may wear any light gown, short strings of beads, a fur neckpiece or a light tulle scarf.

Dignity and simplicity should characterize a man's portrait. Dark clothes and patterns are best, while checks, decided stripes or bright contrasting colors in tie or shirt should be avoided. Except for the simplest possible scarf-pin, jewelry is not good taste. Full-figure pictures of men are rarely good, with the possible exception of one in a uniform. A man, even more than a woman, must be simply photographed, with a natural, unaffected pose and expression.

After all, it is the person whose picture we want, and clothes, furniture, fans, diplomas and other accessories are not only unimportant, but often distract the attention from the subject. A good photographer puts the personality of the individual above every other detail, but the sitter should aid him by following the rules of simpleness and naturalness, which are, after all, only those of good taste.

RAISING CARNATIONS FROM SEED

I once thought that if I had carnations I must get them from the florist. At our house we are all very fond of the spicy beauties, so I decided to try raising them from seed, and found it could be done easily.

It is best to sow the Marguerite seed. This variety comes into bloom earlier than any other I know. If well cared for, the plants will blossom in four months from the time of sowing seed. I sow the seed in the hot bed, just about this time of the year, but they could be sowed in boxes of prepared soil in the house late in March. They should be kept moist until they germinate. When about one inch high, I transplant to another part of the hot-bed and the seedlings immediately begin to stock up and become thrifty plants.

They are left here and the dirt often loosened around them until they are about four inches high. They are then transplanted in the open ground and left until the latter part of September, when they are potted. They should be cultivated through the summer—the oftener the better.

When potting for winter use a rich, tenacious soil, having a good drainage, as the plants do not thrive in a soil that does not hold together well when moist. To get bushy plants while in the ground, nip the tops off as fast as they shoot up.

At the time of potting for winter, the plants are loaded with buds and must be handled carefully. I get best results when I put them in tin cans, each plant then gets just the care it needs. If kept in a moderately cool, moist room they will bloom all winter.

The greatest error made in amateur carnation culture is keeping the plants too warm. An upstairs sleeping room is about the right temperature. If too warm, the buds will blight and the plants become infested with green aphis. In this event, moisture and frequent sprinkling are the best remedies.

From a package of seeds I have often raised twenty-five plants, the greater portion of them full and double. If I do not care to have them blossom in the winter I can transfer them to the cellar and put in the open ground the next season.—MRS. GEORGE GRAY.

A LIFE-GIVING MEASURE

"What is in the mind of the rural woman? She wants to know the physiological aspects of motherhood and to bear and bring up her children in an atmosphere of enlightened education rather than of ignorance and fear."

When E. C. Lindeman said this before an audience of farm women the sudden outburst of applause showed that he had touched a theme very near their hearts.

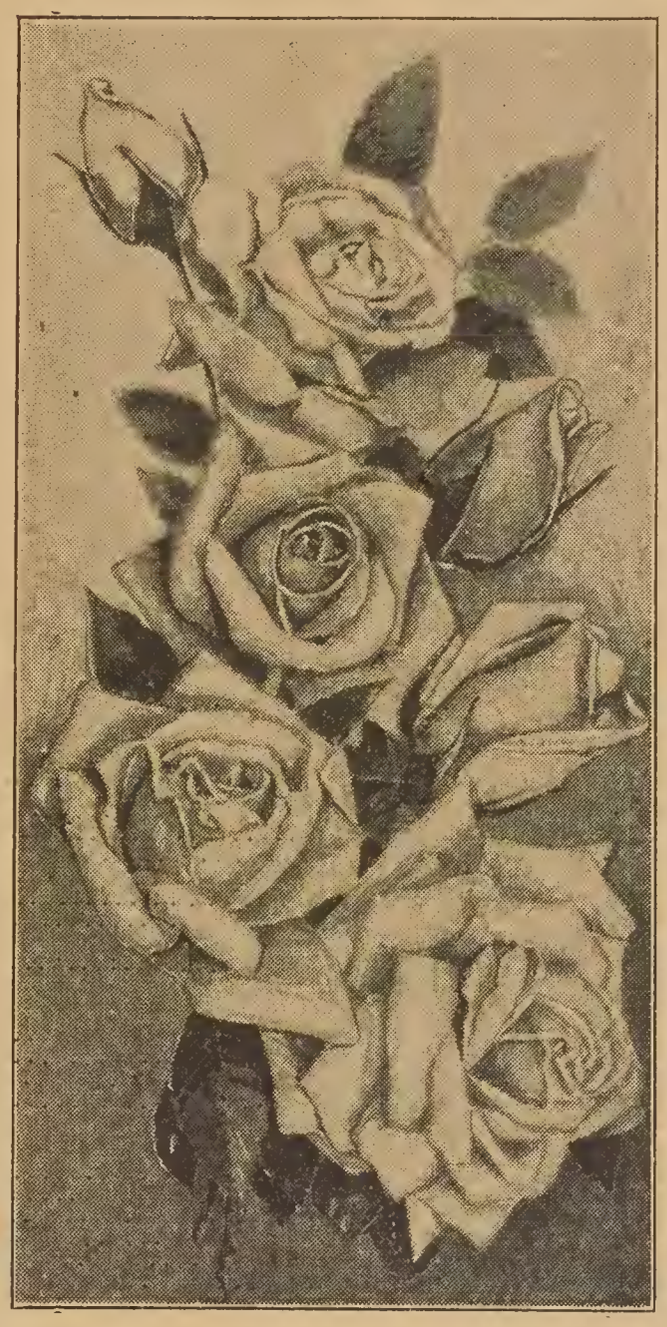
That education means health, for mother and child alike, is the underlying principle of the Sheppard-Towner act, passed by Congress and unwarrantably delayed in New York State by legislative inaction. Eighty-six of every thousand babies in the State die in their first year and the death-rate is highest in the country.

The act will actually save life. There is no excuse for sacrificing it to politics.

THIS IS WORTH MEMORIZING

PEOPLE try to persuade me out of farming. * * * Is there any other pursuit that furnishes one fraction of the joy, as a by-product, that farming does? Here I was just going out for posts, and what blossoms and poetry did I not come upon? No matter how exasperatedly one starts out, one returns rewarded, whether it is from a trip to the barn on a stormy evening, when your lantern makes a golden richness in the brown shadows, and everything smells of hay and milkiness, and the beasts are so sleepily pleased to see you that they quite melt your heart; or from a dash through a star-lit barnyard, on some anxiety or other, with a freezing wind blowing, but with Venus and a young moon putting your eye out over the top of the wall; or from a fagging jaunt in a twilight rain after escaped ponies, when the graying mountain world grows beautiful beyond any dream, and one pushes the soaked hatbrim away from one's eyes and thanks Heaven for sending one out to see it. We are too lazy or too busy, or too unrealizing, to get at beauty; we have to be shoved out into it, and if it is your vocation that does the shoving, thank it with all your soul. Give up farming? Not while I love air and moonlight and gray rain and birdsong and the woods—and a million other things.—From **THE LONE WINTER**, By Ann Bosworth Green.

18 EVER-BLOOMING ROSE BUSHES YOURS AS A GIFT For Only 2 Yearly Subscriptions for *American Agriculturist* at $1.00 each. Your own renewal may be sent as one of the two subscriptions required.



No reader can afford to miss this mammoth gift offer — the greatest collection of plants we have ever given.

What can add more to the charm and beauty of your home than bowers of exquisite fragrant roses? Roses breathe sentiment and happiness. No home is complete without this remarkable collection of 5 pink, 4 white, 5 red and 4 yellow roses. One of them is a climber. These rose bushes are guaranteed to reach you in good condition in proper time for planting in your locality.

The entire lot of 18 rose-bushes will be sent you, postpaid, for only two yearly subscriptions at $1.00 each. Address

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461 FOURTH AVENUE
NEW YORK CITY

Safeguard the Health of Your Family
ENJOY MODERN CONVENIENCES
BATH, TOILET, KITCHEN SINK IN THE HOME
Perfection Septic Tank
Sewage Disposal Without Sewers
FIRST COST THE ONLY COST
NO UP-KEEP REQUIRED
CONSULT YOUR PLUMBER

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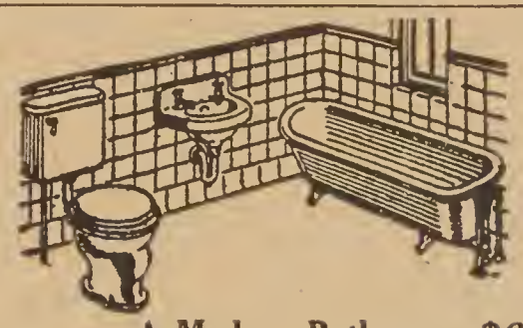
INDIANAPOLIS, IND.



The "Pride"
Send for Catalog 40
A Modern Bathroom, $60
Just one of our wonderful bargains. Set comprises a 4, 4½ or 5 foot iron enameled roll rim bath tub, one 19 inch roll rim enameled flat-back lavatory, and a syphon action, wash-down water closet with porcelain tank and oak post hinge seat; all china index faucets, nickel-plated traps, and all nickel-plated heavy fittings. J. M. SEIDENBERG CO., Inc. 254 W. 34 St. Bet. 7th and 8th Aves. N. Y. C.

ARECO BLEND
COFFEE 32¢ lb
In 5 lb. Lots
Bean or Ground
Fresh From the Wholesale Roaster
Saving Retailer's Profit
SENT PARCEL POST PREPAID ON RECEIPT OF YOUR CHECK, MONEY ORDER OR CASH
Satisfaction Guaranteed or Money Back
GILLIES COFFEE CO., 233-239 Washington Street
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Sweet Potato Sprouts Best — Earliest — Most Profitable market sweet known. Seed Cobblers. All grown from certified seed. For circular address W. L. ELZEY, Exmore, Virginia.

$2.50 Per Day *and upward*

is one reason for the rapidly growing popularity of the Hotel Martinique.

Another is the consistent economy of the entire establishment. Here you may enjoy a Club Breakfast at 45c., consisting of Fruit or Cereal, Bacon and Egg, and Rolls and Coffee —Special Luncheon and Dinners of superior quality are also served at the most moderate possible prices.

No location can be possibly more convenient than that of the Martinique. One block from the Pennsylvania Station (via enclosed subway) — Nine blocks from Grand Central— one block from the greatest and best Shops of the City— half a dozen blocks from the Opera and the leading Theatres —and directly connected with the Subway to any part of the City you wish to reach.

"The BEST without extravagance"
Hotel Martinique
Affiliated with Hotel McAlpin
Broadway-32nd to 33rd Sts.
NEW YORK
A. E. Singleton, *Manager*

Reviewing the Latest Eastern Markets and Prices

HAY-PERMIT SYSTEM ABUSED

ATTENTION has frequently been called on this page to the abuses that were possible in the administration of the permit system that has been used by the railroads for controlling hay shipments to the New York City market. Under this system the railroads, particularly the New York Central, have issued quantities of permits to receivers of hay in the market proportionally, supposedly, to the amount of business these receivers did, and these permits were then forwarded to the shippers. They were used quite generally by receivers as a means of soliciting business for themselves, it being impossible for shippers to send hay here on consignment without having such a permit.

A few weeks ago, when the New York Central ceased to issue any more permits because of congestion, the hay shipments continued to come in with very little difference. Complaints were made to the New York Central, and an investigation revealed that permits issued as far back as early in 1922 had been altered and used for present shipments.

As a result of the discovery of this condition, a conference was held this week between the receivers and representatives of the N. Y. C. R. R., at which the railroad agreed to begin a new system of issuing permits in May. This new plan involves the issue of a certain number of permits to each receiver, probably on the 1st and 15th of each month, these permits to have time limits of fifteen days. There will be a system of checking to prevent duplication or other misuse.

This may be an improvement over the old system, but it will still permit of favoritism and a great amount of abuse, and makes it practically impossible for any independent shipper who is not working with an established receiver here to send hay into this market. In our judgment the hay producers and shippers should protest against the continuance of the permit system at all.

The local hay market dragged along last week, and prices tended lower on medium and low-grade hay. A shipment of two river barges arrived early last week containing chiefly lower grades. It is reported that there is a large quantity of hay on hand at country points and an abundance of Canadian hay, which would be sent here at the first opportunity.

Rye straw continues scarce, selling generally at $32 per ton for either State or Jersey.

POTATO MARKET WEAK

Heavy arrivals of old potatoes in New York City yards, over 300 cars, and a good supply of new have made prices react sharply. Warmer weather has a tendency to slow up the trading.

States are offered in car lots, delivered not freely at prices ranging from $3 @ $3.50 per 150-lb. sack; Idahos at $2 cwt. in uneven-weight sacks; Wisconsin round whites at $2.80 per 150-lb. sack.

Maines in the yards are selling from $4.50 @ $5 per 180 lbs. bulk; Long Islands, same amount, $6; States, $2.75 @ $3.50 per 150-lb. sack. Floridas on the piers are selling at $9 @ $10 bbl.

Many buyers will feel inclined to favor new potatoes if the arrivals continue to increase.

The Crop Reporting Board of the United States Bureau of Markets estimates that the planting of Irish potatoes this year will be 90.9 per cent, and will be 99.6 per cent of the average annual acreage in the last five years. The decreases in planting are noted in Maine, New Jersey, South Dakota, Nebraska, New York, Wisconsin, Virginia, Michigan, Colorado, North Dakota, and Idaho.

EGG SUPPLIES INCREASING

The more seasonable weather has brought a larger production of eggs, and the movement to the large markets is steadily increasing. There was a much heavier supply of average quality near-by eggs in the New York market last week, and there were liberal offerings at 29 @ 31c. Fancy near-by hennery white and brown eggs were relatively scarce, however, and the market was steady for them. Prices in general showed very little change during the week, but a considerable proportion of average quality eggs were probably sold at prices somewhat below quotations.

The movement into cold storage has increased, but the supplies are still much shorter than last year. Buying for storage purposes was not as brisk last week as the week previous. Many operators held off expecting lower prices in May.

GOOD DEMAND FOR BROILERS

Receipts of spring broilers were light last week, and the demand for them continued very active. Prices continued at previous levels, the best colored stock bringing 65c. each and leghorn broilers 55c. Some leghorn broilers of lighter weights sold at 40c. and colored at 60c. With larger receipts these prices would probably decline somewhat, but the condition of the market is very good.

The market for fowls was quite irregular last week, and all sales were not made at the publicly quoted prices. The demand is chiefly for fairly light stock, and express shipments of light fowls sold at 29c., with the heavier at 28c. per lb.

BUTTER CONTINUES LOWER

Wholesale butter prices continued to decline last week and were on April 26 2½c. per lb. lower on all grades of creamery. Creamery extras, 92 score, were quoted April 26 at 42c., compared with 44½c. a week previous. It is the opinion of the New York wholesale trade that prices are still several points above the level at which it is practical to put much butter into cold storage. It is expected that another week or two will pass before still larger production results from turning stock on to pastures, and large storage movement will begin.

Last week the movement out of storage at New York exceeded the movement into storage. The amount on hand in cold storage in four large markets April 26 was only 1,379,908 lbs. compared with 2,420,816 at this time last year. The receipts of butter at New York last week were only 500 lbs. in excess of the week previous, and were 7,000 lbs. below the receipts in the same period last year.

The Boston and New York markets were about the same in price last week, but Philadelphia was about ½c. lower at the end of the week, and Chicago 2c. lower. A number of fairly large sales of creamery extras for June delivery have been reported at prices ranging from 39½ to 41c. per lb. Undoubtedly the prices this summer will be higher than last year, and the indication is that the large purchases for storage will be around 38 @ 39c. seaboard.

CHEESE MARKET STEADY

The wholesale cheese market was firm last week. Prices on State whole milk, held; flats, average run, held steady at 27½ @ 28c. lb., and fresh flats, average run, sold ½c. higher.

Storage stocks in the four large markets, April 26, amounted to 4,616,551 lbs., compared with 3,889,618 lbs.. at this time last year. Receipts at New York last week were over 60,000 lbs. in excess of the previous week.

Production in Wisconsin is still running slightly ahead of last year, the increase being estimated at about 8 to 10 per cent. It is reported that many more up-State factories have contracted their entire output for the season, and the shipments of uncontracted State cheese to New York will be very small.

HONEY PRICES FIRM

The New York market on honey last week was rather quiet and trading principally in small job lots, but prices were firm due to a very light supply of domestic honey and still lighter supply of foreign goods. New York comb buckwheat remained steady at $3 @ $4 per crate and extracted at about 9 @ 10c. per lb. Clover in the comb per case $3.50 @$4.50, extracted per lb. 9½ @ 10½c.

MAPLE PRODUCTS HIGHER

The high price of sugar may tend to help the market for maple sugar and maple syrup. The bulk of the sale of blended syrups comes in the fall but since the prospect is for even higher prices of cane sugar in the fall, it is possible that the demand for maple sugar at better prices than last year will be active before then.

Farm packed pure maple syrup of irregular quality is quoted at New York at $2 per gallon and maple sugar at 25 @ 30c. lb. The best graded uniform quality No. 1 syrup from both Vermont and N. Y. State is selling in a limited way in gallon tins at higher than $2 per gal. wholesale. No firm price yet established on Vermont sugar.

LIVE CALF MARKET STEADY

Although very heavy receipts of live calves at New York on Monday, April 23, caused a sharp break in the market, the receipts were very much lighter the rest of the week, and the market tended to be generally steady. Prime live veal calves sold per 100 lbs., April 26, at $11.75 @ $12; fair to good, $10.50 @ $11.50; common to medium, $7.50 @ $10.50; and culls, $6 @ $7. Quality had to be choice to command the outside figures. At the end of last week there were no live sheep and lambs on the commission market, all consignments being direct. The tone appeared to be steady to firm. Spring lambs, if prime, would bring about $19 @ $20.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on April 26:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	38@39½	......	......
Other hennery whites, extras	35@36	......	......
Extra firsts	32½@34	30@31	28½
Firsts	30@32	......	26½
Gathered, whites, first to extra firsts	30@34	......	......
Lower grades	28@29	......	......
Hennery browns, extras	33@35	......	......
Gathered browns and mixed colors, extras	29@32	29@30	......
Pullets No. 1	25@27	......	......
Butter (cents per pound)			
Creamery (salted) high score	42½@43	46@47	......
Extra (92 score)	42	44@45	41
State dairy (salted), finest	41½@42	42@43	......
Good to prime	40½@41	35@41	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$23@25	$20@21	$21@22
Timothy No. 3	21@23	......	18@19
Timothy Sample	14@17	......	......
Fancy light clover mixed	24@25	......	21@22
Alfalfa, second cutting	27@29	......	......
Oat straw No. 1	13@14	......	15½@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	28	25@26	29@30
Fowls, leghorns and poor	......	23@24	......
Chickens, leghorns	22@24	......	26@27
Roosters	16	17@18	19@20
Live Stock (cents per pound)			
Calves, good to medium	10@11	9@11	......
Bulls, common to good	4@5	4½@5¾	......
Lambs, common to good	9@12½	12	......
Sheep, common to good ewes	3½@5½	6½@7½	......
Hogs, Yorkers	8½@9	8½@8¾	......

DRESSED VEALS LOWER

Country dressed veal calves declined considerably last week, choice bringing on April 26 only 14c. per lb., compared with 16 @ 17c. last week; good to prime on April 26, 11 @ 13c.; poor to fair, 8 @ 10c., common, 4 @ 7c. All these prices are considerably below last week. There is a shortage of really choice and fancy veals, but an abundant supply of ordinary quality dressed lambs were fairly plentiful last week and in good demand when of desirable weight. Prices, April 26, for poor to good country dressed lambs were $3 @ $9 per carcass; choice hothouse, $10 @ $11.

WHEAT-FEED TRADE BRISK

Lighter offerings and brisk demand brought higher prices on wheat feeds last week. Trading in other feeds was quiet. Buffalo market prices, April 26, on carlots, Buffalo rate basis in 100-lb. sacks, sight draft, were as follows, per ton:

Gluten feed, $39.55; Cottonseed meal, 36%, $47.25; Cottonseed meal, 43%, $53.25; Oil meal, $43; Dried brewers grains, $34; Standard spring bran, $35.25; Hard winter bran, $35.75; Standard spring middlings, $34.75; Choice flour middlings, $37; White hominy, $34.80.

Corn advanced one-half cent per bushel. No. 2 yellow corn sold per bushel at 95c; No. 2 white oats, 53½c; Barley, feed, 73@77c; No. 2 rye, 95c.

CASH GRAINS IN NEW YORK

Cash grain quotations at New York, April 26, were as follows:

Wheat, No. 2 red, $1.52; No. 2 Hard winter, $1.41½; Corn, No. 2 yellow, $1.02½; No. 2 mixed, $1.02; Oats, No. 2 white, 57c; No. 3 white, 55½c; Rye, c. i. f. export, 96½c

Chicago—Wheat, No. 2 hard, $1.28; Corn, No. 2 white, 84¼@84½c; No. 2 yellow, 85@85½c; Oats, No. 2 white, 47@47¾c; No. 3 white, 46½@46¾c; Rye, 87½c; Barley, 65@70c.

WANTED
If you have HAY and STRAW to sell write us for quotations and free Booklet "How to market Hay and Straw."
JOHN E. MURRAY, Inc.
1658 BROADWAY, NEW YORK CITY, N.Y.

WANTED FRESH
Brown and White Eggs
Also Duck Eggs
GEO. M. RITTENHOUSE & CO.
23 and 25 Jay Street, New York
Established 1867

Spring Egg Season
Means Plentiful Production
—SHIP TO—
TAUBER BROS.
140 READE STREET NEW YORK CITY

EGGS WANTED
Well-packed, evenly graded, Whites and Browns bring highest prices
LEWIS & SANDBANK
Bonded Commission Merchants
152 Reade St., New York
REFS. GREENWICH BANK: COM. AGENCIES

SHIP to the right house
M. ROTH & CO.
321 Greenwich St.—N. Y. C.
Write for shipping Tags
EGGS

SHIP YOUR EGGS
WHITE AND BROWN
To R. BRENNER & SONS
Bonded Commission Merchants
358 Greenwich St., New York City

BABY CHICKS

Hatching every day in the week and every hour in the day. We are the world's largest producers.

THREE MILLION FOR 1923

Twelve popular breeds of best thorobred stock obtainable, moderately priced; also **QUALITY** chicks from heavy laying stock at small additional cost.

We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

Smith's Standard Reg. U.S. Pat. Off.

THE SMITH STANDARD COMPANY

Boston, Mass., Dept. 67.....184 Friend Street
Philadelphia, Pa., Dept. 67.....833 Locust Street
Cleveland, Ohio.....1967 West 74th Street
Chicago, Ill., Dept. 67.....427 So. Dearborn Street
(Member International Baby Chick Association)

CHICKS

PEDIGREED, EXHIBITION & SELECT GRADES from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.

NABOB HATCHERIES, Box A5 Gambier, Ohio

TIFFANY'S SUPERIOR CHICKS THAT L'VE

Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

BABY CHICKS

We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

E. P. GRAY, Box 90, Savona, N. Y.

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $9.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad. Free circular.

MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

BABY CHICKS

Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. . We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

QUALITY HATCHERY, Box B, Zeeland, Mich.

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

TRY US AND BE SATISFIED

RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

BABY CHICKS

of heavy laying quality at the right price. Barred, White and Buff Rocks; Brown, White and Buff Leghorns; R. C. and S. C. Reds; White Wyandottes, Buff Orpingtons and Anconas. We hatch our own Chicks. Circular free. For a square deal, write to the

OHIO HATCHERY, Decatur, Ohio

CHICKS CUT PRICES

That are better, stronger, with plenty of "pep"; chicks easier to raise. That's the kind you have been looking for; that's the kind our system produces. It will pay you to learn how it is done. Write today for free new Bulletin C. ELDEN E. COOLEY, FRENCHTOWN, N. J.

LARGE STOCK Blue Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Collies, Pigeons, Chicks, Stock, Eggs, low; catalog. PIONEER FARMS, Telford, Pennsylvania.

BABY CHICKS

The big, fluffy, lively kind—THE KIND THAT LIVE AND GROW—FROM PERSONALLY SUPERVISED and CULLED FREE RANGE FARM FLOCKS of heavy laying strains produced in one of the most modern hatcheries in the country.

BARRED and WHITE ROCKS, REDS, ANCONAS, MINORCAS, 50, $8; 100, $15; 500, $72.50. BUFF ORPINGTONS and WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. WHITE and BROWN LEGHORNS, 50, $6.50; 100, $12; 500, $60. Postpaid and full live delivery guaranteed. Bank Reference. Order NOW direct from this ad and get them when you want them. Free circular. NORWALK CHICK HATCHERY, Box B6, Norwalk, Ohio. Only 15 hours from New York City.

Prices of BABY CHICKS *for May Delivery*

White, Brown and Buff Leghorns, each	12c.
Barred and White Rocks, R. I. Reds, each	14c.
Black Minorcas and Anconas, each	13c.
White Wyandottes and Buff Orpingtons, each	16c.
Assorted Varieties, each	10c.

Sent prepaid parcel post. 90 per cent. live delivery guaranteed. Order direct from this ad or send for price list.

THE LANTZ HATCHERY, TIFFIN, OHIO
Established 1906

750,000 CHICKS

$10.50 PER 100 AND UP. From Hogan tested, well-kept, heavy laying flocks. Wh., Br., and Buff Leghorns, 50, $7; 100, $13, 500, $62.50. Bar. Rocks, Anconas, 50, $7.50; 100, $14; 500, $67.50. Reds, Wh. Rocks, Minorcas, 50, $8; 100, $15; 500, $72.50. Buff Orpingtons, Wh. Wyandottes, 50, $9; 100, $17; 500, $82.50. Mixed, 100, $11; 500, $52.50. Postpaid and full live delivery guaranteed. Order right from this ad. ALSO EGGS FOR HATCHING. Free Catalog. Ref. 4 Banks. Only 18 hours to New York City.

TRI-STATE HATCHERIES, Box 510, ARCHBOLD, OHIO

BABY CHICKS

From 200-Egg Hens

Chicks from winter laying, farm raised, mature stock S.C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

Glen Rock Nursery & Stock Farm
Ridgewood, N. J.

BABY CHICKS—Our 19th Season

Hatched from standard, pure bred, free range stock by long experienced operators. Twelve leading varieties, $10 per 100, up. Shipped Postpaid. Safe delivery guaranteed. Illustrated catalog free.

20th CENTURY HATCHERY
Box R New Washington, Ohio

CHICKS WITH PEP, $11 Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off.

Free catalog. Member I. B. C. A.

HOLGATE HATCHERY, Box A, Holgate, Ohio

BABY CHICKS

S. C. W. LEGHORNS

S. C. Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

BROOKSIDE POULTRY FARM
Box A SERGEANTSVILLE, N. J.

1923 Chicks

Wh., Br., and Buff Leghorns. 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.

Globe Hatchery, Box 57 Berne, Ind.

Hampton's Black Leghorn Chicks

Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.

A. E. HAMPTON, Box A Pittstown, N. J.

QUALITY BABY CHICKS

Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

C. M. LORGENECKER, Box 40, Elizabethtown, Pa.

CHICKS $10 per 100 and Up

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

VARIETIES	Prices on—	50	100	300	500	1,000
White, Brown and Buff Leghorns		$7	$13	$38	$62	$120
Barred Rocks, Black Minoreas, Anconas and Reds		$8	$15	$44	$72	$140
White Rocks and White Wyandottes		$8.50	$16	$46	$75	$145

Buff Minorcas 50, $13; 100, $25. Mixed Chicks for Broilers, 50, $6; 100, $11; 500, $50. Postpaid. Full live delivery guaranteed. Hatched in the best possible manner from good, vigorous, pure-bred, heavy laying flocks on free range. Carefully selected and packed to go safely. No Catalog. Order right from this ad with full remittance and save time. Reference, Citizens' Savings Bank. You take no chances. THE EAGLE NEST HATCHERY, Box F, Upper Sandusky, Ohio.
Only 18 hours from New York City.

GUARANTEED RURAL CHICKS

Postpaid, 100% live arrival guaranteed. Scientifically hatched by most modern methods. From free range HIGH AVERAGE PRODUCING flocks, culled and approved by experts. Pullets reported laying at 4 months of age. BIG, HUSKY, PURE BRED, S. C. English White Leghorns, S. C. Brown Leghorns, 100, $13.00; 500, $62.50; S. C. Anconas, 100, $11.00; 500, $67.50. Special prices on larger lots. A very limited amount of Extra Selected Special Matings @ $2.00 per hundred higher. Order right from this ad. A deposit of 10% books your order. We can ship whenever desired. Beautiful catalog free. Reference: ZEELAND STATE BANK.

RURAL POULTRY FARM, Dept. A, R. No. 1, Zeeland, Michigan
"Only 20 hours from New York City"

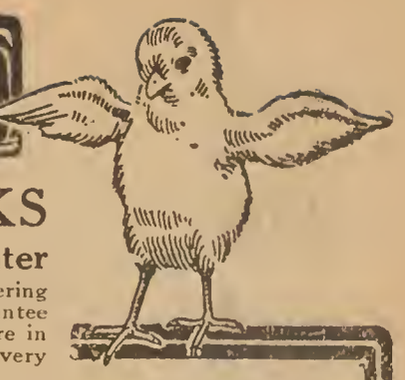
Chicks $12 Up

100% SAFE ARRIVAL GUARANTEED

PRICES—White, Brown & Buff Leghorns, 50, $7; 100, $13; 500, $60. Barred Rocks, S. C. & R. C. Reds, Anconas, B. Minorcas, 50, $8; 100, $15; 500, $70. White Wyandottes, White Rocks & Buff Orpingtons, Sheppards 331 egg strain Anconas. White Minorcas: 50, $8.50; 100, $16; 500, $75; mixed, 50, $6; 100, $11; 500. $50. Hatched from selected heavy laying flocks that are well fed and cared for, insuring strong, livable chicks that will make a profit for you. POSTPAID TO YOUR DOOR. ORDER DIRECT FROM THIS AD AND SAVE TIME. Catalog free. Reference, Geneva Bank.

THE GENEVA HATCHERY, BOX 502, GENEVA, IND. CAN REACH NEW YORK CITY IN 18 HOURS

HILLPOT



QUALITY CHICKS

May Chicks That Lay in Early Winter

when eggs sell at highest prices. Have layers THEN by ordering vigorous Hillpot Quality Chicks NOW. Remember our guarantee—safe delivery of full count with delivery postpaid anywhere in U. S. A., east of Mississippi River. Add 10c for special delivery on each hundred or less.

REDUCED PRICES—In Effect May 14, 1923

	25	50	100	500	1000
Wh., Blk. or Brn. Leghorns	$4.00	$7.50	$15.00	$72.50	$140.00
Barred Rocks	4.75	9.00	17.00	82.50	160.00
R. I. Reds	5.00	9.50	18.00	87.50	170.00
White Rocks or Anconas	5.25	10.00	19.00	92.50	180.00
Wh. Wyandottes or Blk. Minorcas	6.75	12.75	25.00	122.50	----
Mixed Chicks	3.50	6.50	12.00	57.50	

Hatches every week during the season. Send money order, check or registered letter. Cannot ship C. O. D.

W. F. HILLPOT, Box 29, Frenchtown, N. J.
Member International Baby Chick Association
Life Member American Poultry Association

Good Chicks

FROM TOMS RIVER

AUTHORIZED BREEDERS ASS'N CHICKS GOOD TOMS RIVER—NEW JERSEY

WHITE Leghorn baby chick, from pedigreed, heavy laying stock of business poultrymen. Hatched from eggs laid by mature hens mated to sons of 200 egg layers or better. High in productive quality, and at these prices are exceptional value:

CHICK PRICES REDUCED MAY 7th

Exceptionally big hatches makes this possible. Our vigorous business chicks, for delivery on and after May 7th, parcel post prepaid, safe arrival guaranteed:

From 25 to 100 chicks, each	15 cents
From 100 to 1000 chicks, each	14 cents
From 1000 upwards, each	13 cents

Order these May money makers immediately.

Write for Illustrated folder

Authorized Breeders' Association
WM. JOHNSTONE, Mgr.
Box P Toms River, New Jersey

High Producing Vigorous PureBred Baby Chicks

Capacity 150,000 healthy chicks at a setting

Fully guaranteed, direct from Trapnested, Pedigreed Tom Barron and Hollywood Imported White Leghorns. World's champion layers. Not just a few 300-egg birds, but a high flock average egg production—that's where you make **your profit.** Hatched in the largest and finest Hatchery in Michigan, by those who know how. **Bargain prices if you order now.** We can also **save you money** on Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds and White Wyandottes. **Satisfaction guaranteed or your money back.**

Handsome, complete catalog free for the asking. Write for it today.

SUPERIOR POULTRY FARMS, Dept. 127, Zeeland, Mich., U.S.A.

JERSEY BLACK GIANTS

Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

PICTURESQUE POULTRY FARM, Box 71, Trenton Junction, New Jersey

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BUY HUBER'S RELIABLE CHICKS

Our 14th Year 1,000,000 For 1923

By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.

OHIO CHICK HATCHERIES QUALITY RELIABILITY ASSOCIATION

HUBER'S RELIABLE HATCHERY North High St., FOSTORIA, OHIO

SINGLE COMB WHITE LEGHORNS

C-ertified by the N. Y. S. Co-Op. Poultry Cert. Asso.
H-usky, by coming from free range vigorous stock.
I-mproved by careful selection and good breeding.
C-hicks, which come from high productive stock.
K-eep records up to the standard of their parents.
S-trong, coming from stock of high constitutional vigor.

It pays to keep utility stock which give the best production of the highest-class eggs. Breeding pens contain our blue ribboners from the New York State Production Show. Let me quote you prices on the Genesee Valley Strain of S. C. White Leghorns. Write for circular, stating your requirements and shipping dates preferred.

L. H. ROBINSON, Genesee Valley Poultry Farm, Box 200, CASTILE, N. Y.

SUNBEAM HATCHERY

The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, growthy Chicks which will mean PROFIT to my customers. PRICES: WHITE, BROWN & BUFF LEGHORNS, 50, $7.; 100, $13.; 500, $62.50. BARRED ROCKS, R. & S. C. REDS & ANCONAS, 50, $8.; 100, $15.; 500, $72.50. WHITE & BUFF ROCKS, WHITE WYANDOTTES, & B. MINORCAS, 50, $8.50; 100, $16.; 500, $77.50. WHITE & BUFF ORPINGTONS SIL. L. WYANDOTTES, 50, $9.; 100, $18.; 500, $87.50. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them.

BANK REFERENCE CATALOGUE FREE

H. B. TIPPIN, Box F, FINDLAY, OHIO Member I. B. C. A.

Five Cans and a Pailful

OVER 400 POUNDS A DAY SINCE JANUARY FIRST FROM

Five Guernsey Cows and Two Heifers

Inlet Valley Farms Guernseys are producers

We have no mature cows giving less than sixty pounds a day when fresh; no heifers under fifty. Our best cow 73.4 lbs. in one day. Our best Junior three year old 62 lbs. Where can you find such production except at

INLET VALLEY FARMS?

Come and visit us. We are four miles from Cornell University at Ithaca, N. Y.

16 COWS ON A. R. TEST 30 IN THE HERD
TWO CLEAN TB TESTS

H. E. Babcock & B. N. Millard, Ithaca, N. Y.

Bellmath Guernseys

Accredited Herd 27455

FOR SALE: Bellmath Reporter 81398

BORN APRIL 2, 1922

A well grown, straight and typey youngster, full of pep and promise

Son and grandson of Class Leaders

SIRE—GLENWOOD'S BUTTERCUP'S LADDIE 46979 A. R. Son of Sixth cow in Class E—Glenwood's Buttercup 48137 A. R. 3224, 13728.8 lbs. milk, 769.8 lbs. fat, Class E. His four nearest dams average 807.7 lbs. fat. He carries the blood of King of the May, Golden Secret and Glenwood Girl.

DAM—MATHA NINITTA OF BELLMATH 70719 A. R. 11747.—12101.4 lbs. milk, 674.2 lbs. fat, Class BB. Finished record eighth cow in her class. First prize A. R. cow at New York State Fair 1922.

Price, $300.00. We guarantee him in every way

Come to us for the best in Guernseys **Younger bulls at farmers' prices**

We are six miles from Auburn on the main highway between Auburn and Syracuse. There is frequent train service direct to our farm.

BELLMATH FARM

SENNETT, N. Y. **H. C. CROCKER & SON**

The Bullrushes Stock Farm

Slaterville Springs, N. Y.

Tompkins County

HERD SIRE—The Bullrushes Ultra Masher

(Son of Ne Plus Ultra 4th.)

Advanced Registry Cows and young stock for sale

HERD ACCREDITED

KNOLLWOOD FARM

PORT CHESTER, NEW YORK

The KNOLLWOOD herd comprises 125 animals, of excellent breeding and conformation, including 27 A. R. cows, several of which are class leaders.

Thirty outstanding females and four males will be offered at the coming joint sale at Knollwood Farm on May 15, next.

Visitors always welcome

Address all inquiries to F. C. Shaw, Mgr., Port Chester, N. Y.

Herd Federa ly Accredited

KNOLLWOOD GUERNSEYS

(Trade Mark U. S. Pat. Off.)

Cathedral Farm Guernseys

Accredited Herd No. 1559

SURPLUS STOCK FOR SALE

Herd Sire: UPLAND'S CAESAR 40788 A. R. Grandson of NE PLUS ULTRA, the only bull with 12 daughters having a record of over 700 pounds B. F.

UPLAND'S CAESAR'S first five tested daughters average 526 pounds B. F.

We offer for sale a few choice females; also several bulls and bull calves out of our high producing A. R. cows.

PRICED TO PLEASE THE FARMER

CATHEDRAL FARM ONEONTA, N. Y.

Accredited Herd No. 21060

BROAD ACRES

Springfield Center, New York

Registered Guernsey Heifers For Sale at farmers' prices

WOODLANDS FARM

IS CONSIGNING TO THE

National Guernsey Sale

At Devon, Pa., on May 17, 1923

WOODLANDS FRITZI, 124564
Born Sept. 10, 1921
Sire—Woodlands Oneida, 52468
Dam—Woodlands Countess, 51109

WOODLANDS TULIP, 130121
Born Jan. 5, 1922
Sire—Woodlands Oneida, 52468
Dam—Woodlands Viola, 100503 A. R

These are the pick of our young herd

WOODLANDS KING TUT

Arrived April 10th, will be offered for sale July 1st

W. B. JONES

WHITE PLAINS Drawer O **NEW YORK**

WALDORF FARMS

Is Offering For Sale

WALDORF AFRICANDER No. 71048

Born September 13, 1920

Sire: Langwater Africander No. 57121 who sold for $8,600 at the 1920 sale.

Dam: Bessie Hardwick of Edgemont No. 39387 A. R. 11894.8 M. 647.73 B. F.

***Also* BULL CALF** Born December 20, 1922 Well marked, good confirmation.

Sire: Wyebrook Ultra Lad No. 57638 A double grandson of Ne Plus Ultra 4th No. 29382

Dam: Waldorf Tulip. Now on test and in 90 days has made 3429.1 M. 179.65 B. F.

ACCREDITED HERD

Address C. E. GREENE, *Supt.*, North Chatham, N. Y.

AMERICAN AGRICULTURIST

Founded 1842

$1.00 PER YEAR | MAY 12, 1923 | PUBLISHED WEEKLY

"They Ain't Goin' To Be No Core"

The Festering Sore in Civilization—By Henry Morgenthau

The Good Old Reliables

A. A. Radio Talk on the Benefits of Greater Consumption of Bread and Milk

By DR. ROYAL S COPELAND

WHEN I was a boy, the Sunday dinner hour was half past one o'clock. The time between breakfast and that belated meal was so long that every Sabbath day I nearly died of hunger. This inordinate appetite of the occasion caused such gorging of the stomach as to make another regular meal out of the question. Therefore, the evening meal of Sunday was always bread and milk.

There is a saying old as the hills, that "bread is the staff of life." In certain age groups milk is almost as essential as air and water. Without doubt the old-fashioned dish of bread and milk is one of the best that can be planned.

To eat too much of too many kinds of food is a common fault. We should strive to make our lives simpler and there is no better place to begin than by eating simpler meals.

Bread and milk, if we never took any other food, would restore waste, supply energy and accomplish practically everything food is expected to do for us. Add to this dish a few green vegetables, a leafy salad, or a little fruit, and we require nothing else.

There are three kinds of food —protein, fats and carbohydrates. Bread and milk supply them all. If I had my way I would include in every daily dietary a quart of milk and a half loaf of bread. If this were the practice of each of us, kidney, liver, intestinal and other ailments would be much less frequent.

When I speak of bread in this enthusiastic way I refer to the product made from a flour unrobbed of its mineral and rougher portions. I cannot get pleasantly excited over the denatured and bleached flour of commerce. There is no particular harm in them, but neither is there any particular good. One might as well eat candy and call it the staff of life. In its place candy is a desirable food, but no one pretends that it supplies anything but the energy-needs of the body. Real flour made into wholesome bread is invaluable to our welfare.

When I refer to milk I speak of clean, bacteria-free, whole milk. It must come from healthy cows. It must be received and transported in clean receptacles. It must be handled by clean persons. If not pasteurized it must be delivered immediately after milking. It must be kept in a cool, clean place.

There is no other article of food so delicate and easily contaminated. On this account, unless properly kept, this precious food may be changed into a poisonous and dangerous article.

But when the milk is properly prepared and unrobbed of its butter fat, it must be counted first of all our foods.

In normal time the United States ships abroad a tremendous amount of wheat. Our exports are about 170,000,000 bushels. Poverty and currency depreciation make it impossible for Europe to buy our products.

What is to become of the surplus grain? This is a serious problem and it must be solved. Otherwise, agriculture, the foundation of American prosperity, will suffer untold damage. Unless the farmer prospers, the national welfare declines. There must be found some means of absorbing this surplus of wheat. The happiness and well being of the Nation demand it.

A few days ago a great expert told me the whole problem would disappear if everybody would eat an extra slice of bread at every meal. To do this would require an extra annual supply of 170,000,000 bushels of wheat.

My first thought was this: If we eat more bread we will eat less meat and other farm products; therefore, we would help the farmer one way and damage him another.

But the expert had a very convincing answer. If the surplus wheat were converted into flour and then baked into bread, the process would require great quantities of other products.

For instance, to make the necessary yeast to prepare this vast mountain of bread, would require 1,500,000 bushels of corn. An equal quantity of corn would be needed to fatten the four million hogs from which the lard would come. The pastries made from the flour would increase the demand for corn starch, another corn product. The farmer would be called on for at least three and a half million bushels of corn for these purposes.

To bake the surplus wheat into bread would require an ocean of milk. The daily consumption of milk in New York City is three million quarts. Poured into quart bottles and then placed side by side these would make a line 167 miles long. To make the surplus wheat into bread would require the amount of milk used by New York for 220 days, or almost four thousand miles of milk. Two hundred million pounds of milk powder or condensed milk would be used if one of these products were substituted for fluid milk.

Greater Market for Butter

A billion pounds of butter would be called for to spread on the bread. Great quantities of rye and barley, in addition to the corn, would be needed to make the yeast.

Sugar, jams, cheese and sauces would be demanded. Fruits for the pies and all the other ingredients used for fillings would be increased in consumption.

To carry all the flour made from the surplus wheat, there would have to be cotton sacks. This demand would require forty million yards of cotton goods, creating a demand for the cotton growers' crop.

Think what a lot of good would be done for the farmers of America if we were to help them by consuming the wheat normally sent abroad. But we would be doing ourselves a lot of good. There is no better food than bread when made of the whole grain and not from denatured and devitalized flour.

The national health would be benefitted and each of us would add to the expectation of life. This plan to eat the surplus is well worth while. Let us go ahead with it.

In bread and milk we have a combination of foods, possessing all the elements for health and growth. The mother who learns these truths and applies them in the home, has started her children on the way to a vigorous life. Strong bodies, good brains and pure blood are made by bread and milk.

Let us aid the farmer and promote health by consuming quantities of these simple, but essential food stuffs.

* * *

I have filled out the Radio Questionnaire and am sending it in. I enjoy the program from station WEAF and every Wednesday evening I hear your fine program. Keep it up, you are doing fine. Indeed, I think your program the best of any that is broadcast on Wednesday evening.—O. H. F., West Valley, N. Y.

* * *

We do not feel one bit isolated in our country home. We enjoy the broadcasting from WEAF. It is fine. We have a three tube set and have listened in on the program of 38 different stations from New York to Los Angeles.—W. W. H., Canfield, Ohio.

* * *

Your radio lectures are excellent. Keep them coming. We are most interested in marketing, feeding and cooperation.—E. L. B., College Park, Md.

* * *

I had the pleasure last Wednesday evening of listening to the radio address of Enos Lee of the New York State Farm Bureau Federation on Cooperative Marketing. It seems to me that this address is worthy of still further broadcasting. I would appreciate it if you would send a copy of Mr. Lee's address to a number of persons whose names I am enclosing on a separate sheet.—H. B. A., New Brunswick, N. J.

A Boost For Farm Products

THE address on this page by Dr. Royal S. Copeland, United States Senator from New York State, is another one of the American Agriculturist farm radio talks which are attracting so much attention throughout the East. Dr. Copeland was formerly Commissioner of Health of the City of New York, and knows whereof he speaks. He had an audience of 500,000 people when he broadcast for us from the WEAF station on Wednesday evening, May 9, at 6:30 P. M. Standard time. With such a great audience you will see, when you read his address, what a strong argument he has given for a larger consumption of milk and other farm products.

We ask you again if you like these talks to let us know. Give us suggestions as to what you would like to have broadcast, and whom you want to hear speak.—The Editors.

Quotations Worth While

Our principles should not be like the slender cornstalk which the north wind will blow one way, and the east wind another, and which the first storm will blow over; but they should be like the mighty oak, with its roots so firmly spread out in the earth that no wind can shake it, and no storm fell it to the ground. If our principles should have similar firm roots, deeply planted within our hearts, no temptation, however strong, will allow us to waver for a moment in doing our duty.—M. L. M.

* * *

I expect to pass through this life but once. If therefore, there be any kindness I can show, or any good thing I can do to any fellow being, let me do it now. Let me not defer or neglect it, for I shall not pass this way again.—STEPHEN GRELLET.

* * *

Lying is trying to hide in a fog; if you move about you are in danger of bumping your head against the truth; as soon as the fog blows up, you are sure to be discovered.

* * *

A man should never be ashamed to own he has been in the wrong, which is but saying in other words that he is wiser to-day than he was yesterday.—POPE.

* * *

Hate is a bad spirit to face the world with, my boy. Hatred is heavier freight for the shipper than it is for the consignee.—AUGUSTUS THOMAS.

American Agriculturist

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 **For the Week Ending May 12, 1923** **Number 19**

The Festering Sore in Civilization

Three Hundred Million People Facing Ruin

By **HENRY MORGENTHAU**

THE present European population is about 450 millions, or more than four times the population of the United States. Of this vast number over three hundred millions are in a worse than subnormal economic and social condition as a result of the World War.

Those of you who have been reading the newspapers know that the finances of practically all the European countries are almost hopeless. It takes 33,000 German marks or 71,000 Austrian crowns to make one dollar; and it takes 5,400 Hungarian crowns or 45,000 Polish marks to do the same; as far as Russia is concerned, it takes an inconceivable amount of rubles to equal a dollar. Even in the countries that are not so badly off, like Italy, France and Belgium, the present currency is from one-fourth to one-third of its par value. I give up the attempt to make my readers understand what it means to live under a currency so changed as Germany's, where it is 1/8000 of what it formerly was; but we can try to grasp conditions in France, Belgium and Italy.

Just to bring this home to you: What would it mean to you if the dollars that you have in your bank, or that you have invested in first class securities, or in your farm, should suddenly depreciate so that they would be worth only one-fourth of their former value? Suppose your former income was $800 a year, and that you were suddenly confronted with the necessity of adjusting your expenses to an income of one-fourth of this, or only $200. The question would not be what would you deprive yourself of, but what your reduced income still permitted you to spend for yourself, your children and your family, and for your farm to use.

The difficulties in these countries with the declining currency are simply heart-rending. All the people of the middle class have been compelled to dispose gradually of most of their furniture, extra clothing, jewelry, silverware and pictures, at very insignificant prices. So that millions are living in bare rooms with empty larders and without more clothes than they have on their backs; and I am reliably informed that in Berlin alone every day at least fifty of these much-to-be-pitied high spirited middle-class people, incapable of soliciting charity, are driven to commit suicide.

But the picture is still incomplete without considering what becomes of these people's children who would have been their successors, who would have made up the middle class of the future, and carried on the civilization. These children are not sent to school because they cannot be fed nor clothed by their parents. They are compelled at ten years of age to go and attempt to earn a living. Though they have inherited the taste for education, music, painting and other high attainments, they are absolutely and completely deprived of developing this tendency and of perpetuating the bulwark of Europe, which has been the middle class.

The teachers and scientists, and in fact almost all of the entire vast class that did the brain work of Europe (and do not let us forget how much they have contributed towards the progress of arts and sciences, and what tremendous benefits we have had therefrom), have had almost to cease their activities through inability to secure books and instruments to pursue their studies and experiments, and food to keep them alive. Their entire yearly compensation now just about suffices to buy them one suit of clothes or ten pounds of butter.

But recently I had verbal reports from a man from Petrograd. He told me that its 3,000,000 inhabitants has shrunk to about 700,000; that hardly a single structure in the city has had any repairs since 1915, that the numerical as well as the physical decline of the population has been followed by the still greater decay of the great city itself. To a greater or lesser degree, this prevails all over Europe. The picture painted by Goldsmith, of "The Deserted Village," though drab indeed, shrinks into a poetic effusion when compared with the tremendous tragedy that has just been enacted in Europe.

Last year I had a conference with a group of Germans. They all were leaders in their various trades or professions. These men were between fifty and sixty years of age. Each one admitted that he had lost all hope of ever recovering from his present depressing financial status. The general story was that they had accumulated during their long active career by careful saving and judicious and fortunate investments from two hundred to three hundred thousand marks, and that their annual income from this amount was about fifteen thousand marks. Before the war, this was a competency; now it means just one half a dollar!

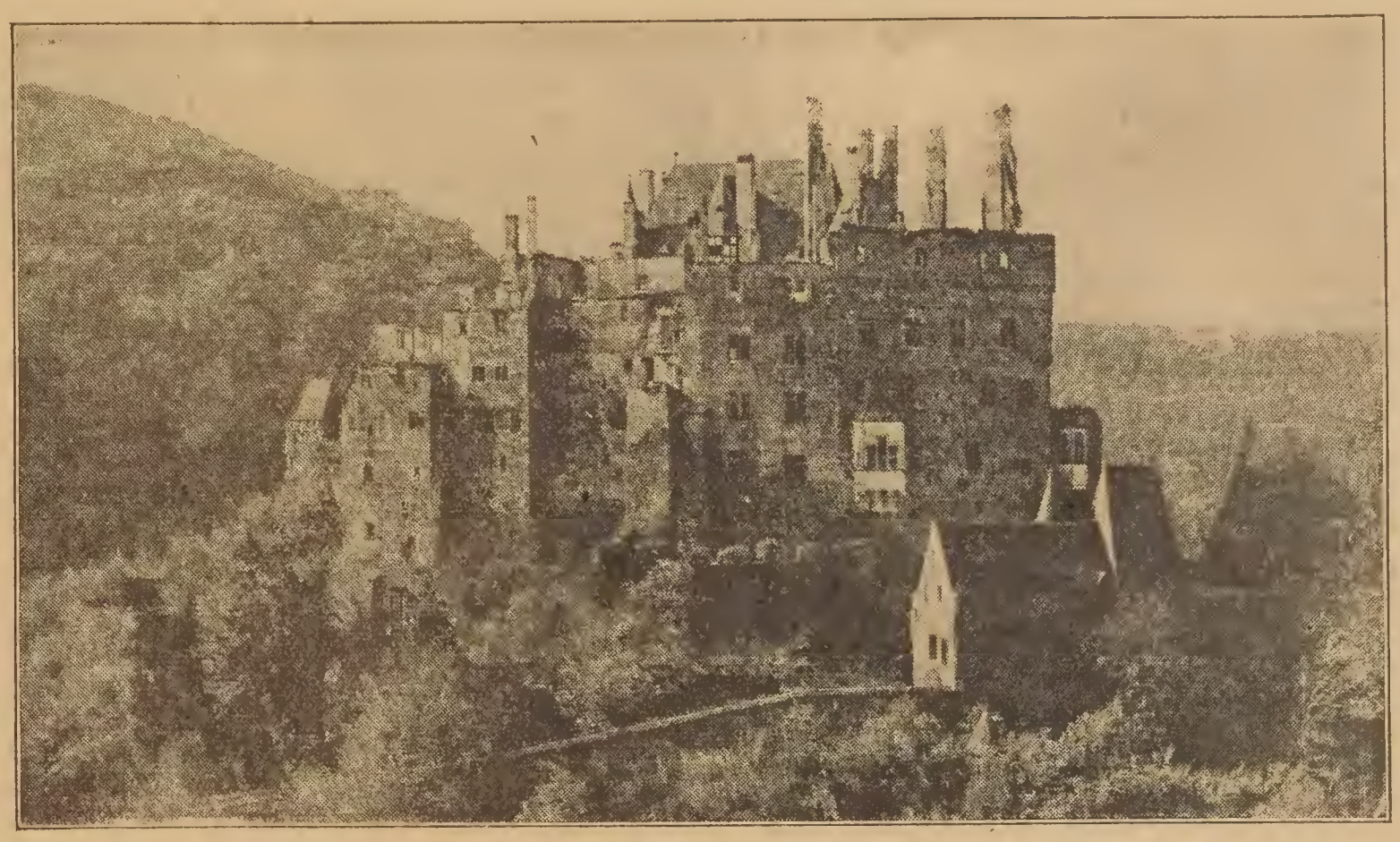
I asked the doctor present whether it affected him, and I stated that he no doubt was an exception because he could charge his patients modern fees. He answered me, "Would you have the heart to charge your friends anything, when you know that they have nothing?" No doubt some of us have despondent moments, but these men, and all of their kind living in most of the European countries, are suffering from permanent despondency.

If one reads an account of the Thirty Years' War, when Germany's population was reduced to one-third and its wealth to one-fourth, and the terrible results that followed this economic decline, famine and disease, he will be struck by the similarity of those awful times to those that now prevail in Europe. It is conditions such as these, just a few of which I have mentioned, that constitute a problem that is troubling every thinking person in the world, including our American financiers,

(*Continued on page* 418)

The Truth About Europe

IF you want a clear-cut, concise picture of the European chaos, you will get it in this article by Ex-ambassador Morgenthau. It is another one in the series that we are giving to state and interpret the plain facts about great world events in which farmers are interested. These articles are attracting a great deal of attention. We have received many letters, a few of them criticising, but the most of them commending our idea, that one purpose of an agricultural newspaper is to discuss and interpret some things besides farming in which farm people are interested.—The Editors.



As has always been the case in history, the castle dwellers of Europe started controversies and wars that the middle classes had to finish and pay for

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

HENRY MORGENTHAU, JR. . . . . Publisher
E. R. EASTMAN . . . . . Editor
FRED W. OHM . . . . . Associate Editor
GABRIELLE ELLIOT . . . . Household Editor
BIRGE KINNE . . . . . Advertising Manager
H. L. VONDERLIETH . . . Circulation Manager

CONTRIBUTING STAFF

H. E. Cook, Jared Van Wagenen, Jr., H. H. Jones, Paul Work, G. T. Hughes, H. E. Babcock

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Rural School Bill Carried Over

THE bill known as the Rural School Bill, which contains the suggestions for rural school improvement made by the Committee of Twenty-one, will not pass this session. The New York State Senate voted for it with only six votes in the negative. It then went to Rules Committee in the Assembly, which committee decided not to report the bill out.

The bill was defeated on the grounds of expediency, for the Assemblymen adopted a resolution commending the principles of the bill. The most of the opponents of the bill in the Legislature and out of it, admit that it is right—a rather strange situation, for if it is right, what real defense is there for not passing it now?

As we have before stated, the Rural School Bill would have provided for a larger local control of the schools, would do away with compulsory consolidation, improve the qualifications of rural school teachers, and in many other ways would have led to a much better rural school system. We believe that farmers will be bitterly disappointed that this bill did not pass when they realize that, had it passed, the school taxes in a majority of the districts of the State would have been materially reduced. This lower tax rate would have come about in most districts because of the equalization provisions of the bill, and especially because the cities would have paid a greater portion of the larger aid which would have come to the rural school districts from the State.

The cities voted for this bill this year. Whether they can be convinced again that it is to their interest to support a bill for improving rural schools, which will mean more taxes for the cities, is, of course, problematical. In the meantime, because of the failure of the Legislature to accomplish much this year along educational or other lines, except to quarrel among themselves over political issues, the farmers will continue to pay the large school taxes without adequate results in school facilities for country children.

American Agriculturist will continue to discuss the educational provisions of the Rural School Bill so that next year the demand for it will be so strong no legislature will dare to turn it down.

"The Brown Mouse"

IT is with considerable pleasure that we are able to announce that we have secured a serial story, "The Brown Mouse," by Herbert Quick, for publication in American Agriculturist. The first installment will begin in our May 19th issue. Because this story is of particular interest to farm people it was sought for by several farm papers, and we happened to be the lucky one to secure the rights for publication in this territory.

Herbert Quick is also the author of "Vandermark's Folly", one of the best stories that has ever been written of farm life and conditions during the early days of this country. Mr. Quick was formerly a member of the Federal Farm Loan Board, and was once editor of "Farm and Fireside", so his viewpoint enables him to write with sympathetic understanding of country life.

"The Brown Mouse" is a story of a hired man who became a school teacher with the strange idea that the schools should teach in the terms of life and of the farm, instead of theories that may never have practical application.

We have often said that people who live in the country have too little opportunities for recreation. It is with this thought in mind that American Agriculturist carries one first class serial story all of the time. We wish we had more room for fiction. Most country housewives do not have time to read books even if there is money to buy them, but a few moments can usually be found each week to read an installment of a good continued story. Hundreds of women have told us that this feature of American Agriculturist was worth more than the price.

Martyrs To Principle

OVER in Russia the other day the Soviet Government tried some Catholic priests for treason. They were not guilty of treason as normal men understand treason, but in Russia the Red Government frowns on all religion, and these priests had insisted on preaching and practicing the tenets of their faith. The bearing of these Christians during their unfair trial is one of the sublime events of history. No soldier going into battle, or Christian martyr on the way to the stake, ever faced certain death for a great cause with more calm courage.

There was little or no evidence against them, and their own clear-cut and positive answers in regard to their religious practices, which were against the Bolshevist law, sent them to their death or to long imprisonment. Every one of the clerical prisoners were asked whether they taught the catechism to children, and every prisoner answered "Yes." Under the Bolshevist law, it is a crime to impart any religious teaching to anyone under eighteen years old. When asked if they would continue such teaching, the reply in every case was the same.

In describing these answers, an American reporter who was present said: "The archbishop's face lit up with pleasure and surprise when he answered. It was as if he could see the way to accept a miraculous gift of health, youth, and unlimited riches.

"Behind the archbishop was the young priest, Edward Yunevitch. Joy flashed in his eyes and irradiated from his whole countenance when asked if he would cease teaching children their catechism. Joyousness so marked his voice in his answer, 'No,' that the three Bolshevist judges, who were all smoking cigarettes, looked up simultaneously in surprise. The priests were asked if after the churches had been closed they had continued to say mass, and they answered, yes, of course, they had all said mass."

On the day when the death sentence was passed on the archbishop, he was asked if he had anything to say. Again we quote the American reporter: "The archbishop rose to his full height and delivered an address so touching and so simple that a profound hush, with something of awe in it, settled down upon the hostile audience of Red soldiers, atheists, sneerers, and demoralized students. The archbishop denied, as did all those who spoke after him, that he had belonged to any political organization or had engaged in any counter-revolutionary intrigues. He had confined himself to teaching his people the truths of his holy religion, the same truths which the church had taught for nearly two thousand years.

"The church had never taught the people to do wrong; he had never taught wrongdoing; he had never taught anything that did not tend to good morals and good citizenship. 'To-day,' concluded the archbishop, 'I stand before a temporal judge; to-morrow maybe I shall stand before an eternal judge, and I hope the temporal judge may be just to me and the eternal judge merciful.'"

The sentence of death was pronounced against the archbishop and one of his priests, Butchkavitch, and his companions were all sentenced to prison. World-wide protest led to the commutation of the archbishop's sentence to ten years solitary imprisonment, but Butchkavitch was shot by a firing squad.

There are times in human affairs when one needs all his philosophy, all his faith in humanity, and all his belief in the ultimate triumph of right to keep from cynically thinking that the whole world is rapidly becoming evil and that everything and everybody are going bad. The period since the war is such a time. The amount of ignorance, prejudice, selfishness, business trickery, and immorality, which seem so rampantly on the increase, is particularly disheartening and disillusioning.

But always at such times there are examples of sublime living and sacrifice for high ideals which far outbalance the evil and renew our faith in the ultimate goodness of our fellow men and in the whole general scheme of things.

The Instinct for the Soil

"A MORAL crisis," says Mr. Herbert Quick in his story "The Brown Mouse", "accompanies the passing of a man from the struggle with the soil to any other occupation, the productiveness of which is not quite so clear. I believe that this deep instinct for labor in and about the soil is a valid one, and that the gathering together of people in the cities has been at the cost of an obscure, but actual moral shock.

"I doubt if the people of the cities can ever be at rest in a future full of moral searchings of conscience until every man has traced definitely the connection of the work he is doing with the maintenance of his country's population."

Mr. Quick is right. The change from agriculture to a less productive occupation is a moral shock seldom realized, but there just the same; and because this is so, we cannot look with any pride upon the great change that has taken place in our country from an agricultural to a city population. Because of our modern methods of living there is no way for a nation to avoid the packing of dense population into the city. But the fact that a majority of our people now do live in the cities, makes it all the more necessary for the nation to do everything possible to maintain upon the land the same strong, prosperous, intelligent people that the American farmers have been in the past, so that through them the whole nation may receive the purifying influence of the soil.

One Year's Stewardship

Publisher of American Agriculturist Reports to 120,000 Reader Owners

By HENRY MORGENTHAU, JR.

IT is just a year ago that I purchased the American Agriculturist. Never has a year passed so quickly or been so full of important events. At the time of the change of ownership, I said "I intend that the welfare of my readers shall be the controlling consideration in the direction of the affairs of this publication. I propose to command your support by deserving it. I shall hope to strengthen the ties that have bound you to this publication." Let us stop a minute and consider whether or not, as a steward of your paper, I have hewn close to the line of my pledge given you one year ago:

The first move that I made to improve the paper was to strengthen the staff and to secure the best writers in their particular field as regular contributors to the American Agriculturist.

Mr. George T. Hughes, on May 20th, joined the Contributing Staff of the American Agriculturist, and through his articles and advice on financial matters, has been able to render a real service to our readers and has saved them thousands of dollars which otherwise might have been invested in questionable securities.

Miss Gabrielle Elliot, on June 3rd, became Household Editor. Under her direction the Household Department has become a very important part of the magazine. She inaugurated a shopping service for our women readers whereby they could buy through her, the latest New York styles at reasonable prices. She introduced Aunt Janet to our readers. She has developed our patterns to a point where we sold 24,000 last year. Her recipes have made many a husband happy.

The next move was to secure Herschel Jones. His weekly market review and forecast have steadily grown in interest and importance and are a daily help to our readers in guiding them in the sale of their produce.

An epoch in the history of the American Agriculturist during the past year was when on September 2, 1922, Jared Van Wagenen, Jr., consented to write exclusively for the American Agriculturist. His column has won for him a warm spot in the hearts of thousands.

Paul Work joined the paper on September 9, 1922, and since that time has been writing on truck, vegetable and market gardening—a department which has grown to be a very important one during the past year.

E. R. Eastman Becomes Editor

During the first three months that I owned the paper, I hunted high and low for a man who would stand out head and shoulders above the crowd as the best editor available in the United States for the American Agriculturist. In E. R. Eastman, our present editor, I felt I had found this man, and on October 14, 1922, I announced that he had accepted the position of editor. Now in looking back over the six months that he has been with the American Agriculturist, I know that the readers have many times and in many ways heartily endorsed my judgment and their approval of the choice of Mr. Eastman.

Birge Kinne became advertising manager in December, and under his forceful, clean leadership, the number of columns of advertising in the American Agriculturist have steadily grown. The fakirs in advertising give Mr. Kinne a wide berth.

We began the New Year by interesting H. E. Babcock, of Ithaca, formerly county agent leader and college professor, now General Manager of the G. L. F. Exchange, to write on livestock, the dairy industry, and cooperative marketing for the coming year. Mr. Babcock's writings have been particularly useful and practical, as they are based on his experiences on his own farm, coupled with a thorough theoretical grounding.

Dean Cook continues to write his Plow-handle talks and his host of old friends still enjoy his sound philosophy.

Under the careful guidance of Fred Ohm, our Associate Editor, the paper goes to press each week. Notwithstanding the heavy responsibilities which have been placed on his shoulders, he still continues his interest in the boys and girls back on the farm.

The American Agriculturist family has grown under the direction of H. L. Vonderlieth, Circulation Manager, until we have over 120,000 members, and he is so encouraged that he has promised this family will exceed 130,000 by the 1st of September.

Thus the American Agriculturist has surrounded itself with a group of writers who, collectively, are unsurpassed.

Editorially we have fought and helped to get passed legislation of great importance to farmers.

Results Accomplished

In our June 3rd issue, Henry S. Graves, former Chief Forester of the Department of Agriculture, told the inside story of how the Department of Interior was trying to get the Bureau of Forestry transferred from the Department of Agriculture to the Department of Interior. The result of this controversy was that Secretary Fall of the Department of Interior resigned and the Bureau of Forestry remained in the Department of Agriculture where it belongs.

Shoulder to shoulder with other friends of the cow we fought for the passing of the Voight Anti-Filled Milk Bill which became a law under the last Congress.

We were successful with other agencies in advocating that potash should be permitted to enter the United States free from any tariff.

The Editorial Staff consistently cooperated with the Committee of 21 to educate the farmer on the Rural School Bill, and we are now doing everything in our power to assist the Committee in their endeavor to have the new school bill become a law.

Our columns assisted the New York Market Growers' Association in their fight against the City of New York to secure the farmers' market place in New York City.

In the August 26th issue, we pointed out editorially that there would be a great shortage of coal for the coming winter, and that there would be a real opportunity for the farmers in making money out of cord-wood.

In September, we were amongst the first to point out the fact that it would be the world conditions that would control the disposal of the surplus of American agricultural products.

In the October 2nd issue, we announced that President Livingston Farrand had accepted from the American Agriculturist a $200 scholarship in the winter course at Cornell. It was Raymond Phillips of Victor, N. Y., who won the scholarship.

The American Agriculturist in the November 11th editorial columns, was the first agricultural paper to urge the World's Dairy Congress and National Dairy Show to choose Syracuse as its next home. Members of the staff worked constantly to bring this great exposition to New York and also advocated the building of a Coliseum which was necessary as a part of the plan. We were very happy when Syracuse was finally chosen as the location.

On December 9th, we began our editorial policy of urging continued restrictions on immigration, which we have constantly pursued up-to-date.

In the latter part of December, we first took up the question of the radio and the farm which was shortly followed on January 13th, by our securing Brainard Foote, whose articles on how to construct various radio receiving sets have proven most valuable to our readers.

In our December 16th issue, we began a series of charts on the production of agriculture in the United States, and showing the fact that in many crops New York State ranks first and that in a total crop production New York State ranks fourth in the United States.

On December 30th, we urged the constructive building program for the College of Agriculture in both New York and Pennsylvania.

On January 13th, the present state of the Country Church, as described by Jared Van Wagenen, Jr., was pointed out to be a grave problem of the countryside to-day.

In the January 20th issue, we urged that the farmers stand by the Dairymen's League.

At the annual meeting of the New York Holstein-Friesan Association, held on January 16th, I spoke on the present delay in compensating the farmer for his condemned cattle under the accredited herd plan, and strongly urged that the State Legislature appropriate sufficiently large sums to pay the farmer promptly. This suggestion has been consistently followed up in our editorial columns. Recently the New York State Legislature has appropriated five million dollars, the largest sum in history for this purpose.

In the March 17th issue, we drew attention through our columns to the country doctor of the old school. The question of the country doctor is a very important one, and we have urged discussion of this question through our columns with the hope that we might possibly help in the solution of this difficult problem.

More recently, we endorsed the plan to hold a great eastern apple exposition and fruit show at the Grand Central Palace, New York City, during the week of November 3-10, 1923.

First To Broadcast Farm News

Broadcasting to the farmers by radio in the North Atlantic States was inaugurated by the American Agriculturist on April 11th in cooperation with the American Telephone & Telegraph Company. The first address was given by E. R. Eastman, our editor, and has been followed with talks by Enos Lee, President of the New York State Federation of Farm Bureaus; John D. Miller, President of the National Milk Producers' Federation and General Counsel for the Dairymen's League Cooperative Association; Mrs. A. E. Brigden, President of the New York Federation Home Bureau; and United States Senator, Dr. Royal S. Copeland, former Health Commissioner of New York City.

In an editorial in the April 21st issue, we endorsed the suggestion of Senator Nathan Straus, Jr., that the New York State Legislature appoint a joint legislative committee to study the marketing conditions this coming summer.

This concludes my report to you, as publisher, of one year's hard work. I sincerely hope that you will approve of it and any suggestions or criticisms that you may have to make will be greatly appreciated by me.

Looking into the future, I assure you that the efforts of the staff, contributors and myself, will be to give you each week a better and more useful magazine than the week before.

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Are Tillage Methods Changing?

Due to the Introduction of the Modern Disk and Spring Tooth Harrows

By H. E. COOK

SEPTEMBER 1, 1819, marked the opening of an epoch in farm life; for it was then, Jethro Wood, the originator of the modern iron plow, gave it, perfected, to the world.

From the original crooked stick the evolution had proceeded until Wood's plow laid the foundation for our present highly developed plow construction and adaptability to our many types of soils; plows for stony land, for clay land, for sandy land and for hilly land. I may be within the bounds of truth to say that the introduction of the modern disk and spring tooth harrows has somewhat interfered with a like development in the art of using the plow. So poorly is much plowing done, that the fields would have been more productive if left untouched. We plow primarily to reduce the sod, stubble and root growth to become decomposed, and to pulverize the soil. The decomposition of organic matter and its mixture with the potential, but not available mineral matter, gives a more fertile soil for the forthcoming crop. Through the decomposition, soil bacteria are also multiplied and chemical forces by the stirring and mixing are set to work.

H. E. COOK

The ordinary inversion of a sod as seen in fields all around does very little of what we have mentioned. It's not the fault of the plow. It was Professor Roberts, the father of our modern agricultural teaching, who said repeatedly, "hot plowshares, boys, hot plowshares." And he was right if we are out to improve our soils.

Harrows Cannot Replace Plow

Although we have heavy disk harrows that do, if heavily weighted, almost plow the land, they cannot take the place of the good old plow. I have planted potatoes following a plowing because in no other way could the land be made as friable and as fit for the potato seed. The proverbial onion bed couldn't compare. The surface could have been as finely fitted but hardly deep enough for level culture potato growing.

I am sorry the old fashioned summer fallow has become unpopular. It was here that the plow was at its best. The land was pulverized, not just scratched on the surface, but to a depth of from 6 to 10 inches depending upon the brain power and vision of the farmer and the horsepower attached and what crops followed. Can't our readers of 60 to 70 years remember? But the plan is no longer in style. Of course one can approximate the summer fallow by once plowing in the fall, and twice in the spring, with harrowing enough between to loosen the form of the furrow slice. but most folks won't do it. I suppose for two reasons, it costs money and we don't think we get pay enough out of the crop or produce sold to warrant this extra labor.

Depth Often Neglected

Then again the depth is many times neglected. No doubt we have some hardpan subsoils that ought not to be turned on the surface but sparingly at each plowing. However, I am inclined to think that no one need remain sleepless on this account. The supposed danger often makes a good excuse for not trying it out.

Deep plowing is important. Land plowed deep will hold moisture better than shallow plowed just as a dirt mulch. Two inches deep is better than one inch deep. No argument is needed to demonstrate that 8 inches of finely mixed surface soil will be a better feeding ground for plant roots than when only 6 inches deep, one third more in volume. Isn't it worth while? No extra charge for seed and seeding and for the harvesting.

There is only one place for shallow plowing. If a sod is to be reduced in a short time by the twice plowing system, the first plowing can be around 5 to 6 inches followed by thorough disking and the second plowing two or three inches deeper. The chance to reduce this thin slice by the cultivation given will be more favorable.

Twenty to thirty years ago spring plowing versus fall plowing was a first line subject. To-day we hear very little. Some one said—I think it was Professor Bailey—that the time to trim a tree was when your saw was sharp, and there is a lot of truth in the answer. I am inclined to say the same about plowing for loamy soils. Clay soil must be plowed when just wet enough, and a clay farmer learns when that time is and not from looks either. In the northern sections, and all of New York State can be classified under the north, fall plowing is desirable.

Fall Plowing Essential

On farms where there is any considerable acreage, we are obliged to fall plow or the plowing wouldn't be done. Some years we have plowing weather in the spring, but as a rule we have winter and before we are aware of the change, spring has come and we can begin seeding. Furthermore fall plowed land holds moisture better, for the very obvious reason that capillarity has been thoroughly established. My judgment would be that more will be gained by having the work done than by its increased water supply if we measure differences over a period of years. I am speaking now of the early planted crops.

If land is weedy and filled with quack roots, fall plowing without cultivation or replowing in the spring will make a muss. When one sees the green streaks between the furrows before winter begins and the spring is a late one, may a kind Providence help the owner because he won't get much help from this piece of land. If the owner intends to follow that kind of farming he would be far better off to put on light top dressing of manure in the fall and grow hay. If he could only have a vision and begin a systematic system of plowing and harrowing until every quack root was dead and converted into plant food then the plow would have become his best servant and friend.

And so I pay my respects to the good old plow that has made the feeding of our millions possible.

The Festering Sore of Civilization

(*Continued from page* 415)

Government officials, and our entire people. It is a problem of special interest to our farmers both economically and socially.

We here in America can talk about the danger of entangling alliances and the need of keeping out of European affairs, but let us not live in fancied security and think that these 450,000,000 people who have millions of relatives and connections in our country can long be permitted to live on in their present condition or to drift into the still worse condition that is now facing them, without affecting us economically, socially and morally. I do not think that we can become so hardened and indifferent to the welfare of our own kith and kin, to the people from whom we have inherited our language, our laws, our art, our literature and our blood, to remain indifferent to their fate. It only takes a few rotten apples in a barrel in time to destroy all of the good ones. Europe is the infectious and contagious sore spot in the world's civilization to-day.

No man nor nation can either create, control or command general forces and natural laws that always determine the collective and individual prosperity of a country. It is fraught with great danger to any man to possess the conceit that he is sufficient unto himself, and this is not only true of individuals, but in this modern age, it is true also of nations. Times have changed within a hundred years. Rapid transportation and inventions in fast communication have brought the world nearer together physically and made it a comparatively small place. If it were possible years ago to declare and maintain an attitude of isolation, the rapid progress of invention has made that policy physically impossible now.

As to the actual method of how we shall work with the European nations to straighten out the chaos, it matters not so long as the method be effective and so long as it does not injure our own nation. An attempt was made following the war to lift the poor old world of ours to a higher plane. Those who led that attempt thought that the terrors of the war had taught the folly of settling international disputes by force. It was hoped to supersede the rule of might by the reign of justice. Because this effort failed is one reason why the chaos still exists in Europe. No set of men and no individuals are to blame for failure. It was simply that the entire world was not yet ready to abandon rivalry and suppress hatred.

I have always felt that any man or woman who is endowed with superior intellectual powers should voluntarily and freely use some part of them for the benefit of the entire community. Why does not the same logic apply to the nations? Our country at present is possessed of greater reservations and resources than any other. Our country is the only one that has been untouched by the destructive flood that has resulted from the war. We have been spared. We have in an orderly manner and without serious disturbances again adjusted ourselves to non-war conditions. Has not the time come for us to lend a helping hand to those who are still submerged by the flood?

This does not mean that we should run the risk of drowning ourselves. As I have tried to point out, we are running a greater risk by doing nothing. In rendering help we can do so with such precaution that we will not in the least possible way expose ourselves to being engulfed. We have listened all of our lives to preachings that all men are brothers. Is all of this talk preaching and theory only, or are we willing to demonstrate our sincerity by actual practice of the greatest of all principles, human brotherhood?

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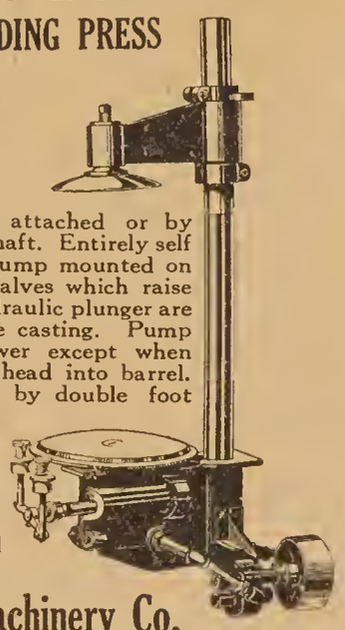

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AMERICAN AGRICULTURIST A-14

461 FOURTH AVE., NEW YORK CITY

Nitrogen, Organic or Mineral?

A Review of the New Jersey Experiments

By C. R. WOODWARD

THE common assumption that the organic sources of nitrogen in fertilizers have a more permanent and lasting effect upon the average soil than the mineral sources, such as nitrate of soda or sulfate of ammonia, is not borne out by the results of experiments at the New Jersey Agricultural Experiment Station.

The influence of nitrogen from mineral and from organic sources upon yield, and the relative proportions of these two forms that are "recovered" from the soil by assimilation into the plant tissues, have been studied at this station a number of years. Recently a 10-year experiment was brought to a close which revealed some interesting contrasts between the two types of nitrogenous fertilizer.

The object of the study, which was begun in 1911, was to determine the relationship of these two sources of nitrogen with special reference to the mechanical composition of the soil. For this purpose 60 metal cylinders, about two feet in diameter and four feet deep, were sunk into the ground so that only about 4 inches of one end projected above the surface. They were arranged in 10 series of 6 each, the soil of the different series varying from a heavy loam to pure sand. That is, the first series contained 100 per cent heavy loam (no sand), the second, 10 per cent sand, the third, 20 per cent, and so on, up to 100 per cent sand. Within each series, two cylinders (the checks) received no nitrogen, two were treated with dried blood, representing organic nitrogen, and two with nitrate of soda, the mineral source. Each cylinder of both sets received sufficient of the respective materials to furnish an exactly equivalent amount of nitrogen—12 grams of the dried blood (about 2-5 ounce) and 10 grams of the nitrate of soda (about 1-3 ounce).

Two crops were grown each year, barley followed by buckwheat. The fertilizer was applied every year, always on the first crop. In order to eliminate other influences each cylinder received annually an adequate supply of acid phosphate, muriate of potash, sulfate of potash and ground limestone. So far as it was possible to control conditions, then, the only differences between the cylinders was in the proportion of sand in the soil and the sources of nitrogen.

Averaging all results, nitrate of soda gave a higher average yield than dried blood—132.6 grams per cylinder to 120 for the latter. Not only this, but the percentage of nitrogen recovered also was larger, 52.7 per cent for the nitrate to 44.4 for the dried blood.

Considering alone the second crop of the season, buckwheat, the average yields of dry matter were actually greater with dried blood than with nitrate of soda, but in both cases they were more than from the check cylinders. The larger yields from the dried blood indicate a greater residual effect from this than from the nitrate, which is reflected also in the percentage of nitrogen recovered—an average of 10 per cent for the dried blood as compared with 3.96 for the nitrate of soda. This difference, however, is not sufficient to offset the much greater recovery of nitrate of soda in the first crop; so that when the two crops are considered together, nitrate of soda outranks the dried blood.

Comparing next the series of cylinders which contained varying proportions of sand, some more interesting facts are revealed. The 10 per cent sand mixture gave the highest yields, on the average, though not the highest recovery. The yields did not vary greatly up to 50 per cent sand, but showed a more marked falling off with the increasing sand proportions in the case of dried blood and of the checks than occurred in the nitrate of soda cylinders. Of special interest is the fact that the yields from the 40 and 50 per cent sand mixtures are almost as large as the yields from the loam soil, although the percentage of nitrogen in

(*Continued on page* 422)

TABLE 1*

Average Yield of Dry Matter and Percentage of Nitrogen Recovered from Soils Varying in Mechanical Composition, 1911-20

Year	Average Yield of Dry Matter			Nitrogen Recovered	
	Check	Nitrate of Soda	Dried Blood	Nitrate of Soda	Dried Blood
	gm.	gm.	gm.	per cent	per cent
1911	174.1†	297.3†	260.7†	38.9†	24.3†
1912	49.5	89.7	112.7	35.3	38.8
1913	54.1	96.3	99.2	41.8	38.2
1914	55.4	125.3	114.2	64.4	55.0
1915	50.1	127.4	115.9	57.0	49.6
1916	53.5	151.3	126.7	60.2	47.5
1917	68.9	166.8	124.8	62.3	41.6
1918	69.6	167.3	138.0	53.3	44.2
1919	52.9	119.5	105.0	48.3	37.6
1920	62.3	149.8	143.4	51.6	47.0
Average	57.4	132.6	120.0	52.7	44.4

* From the Annual Report of the New Jersey Agricultural Experiment Station for 1921.
† Omitted from average (Corn grown in 1911).

TABLE 2*

Nine-Year Average Yield of Dry Matter and Nitrogen Recovery for Each of the 10 Soil Mixtures

Soil Mixture	Series	Yield of Dry Matter			Nitrogen Recovery	
		Check	Nitrate of Soda	Dried Blood	Nitrate of Soda	Dried Blood
		lbs.	lbs.	lbs.	per cent	per cent
Loam Soil	A	81.4	157.0	147.9	56.38	46.18
10% sand	B	89.3	164.5	149.9	52.75	42.89
20% sand	C	70.5	152.4	135.6	58.11	47.65
30% sand	D	68.6	156.4	137.2	59.70	47.52
40% sand	E	65.4	153.3	130.7	62.05	47.54
50% sand	F	68.6	152.1	126.8	58.15	40.39
70% sand	G	46.1	134.9	110.5	59.70	45.55
80% sand	H	42.0	110.5	107.7	47.12	47.14
90% sand	I	27.9	97.8	88.3	47.44	42.39
100% sand	J	16.3	47.2	65.0	25.49	36.41
Average		57.6	132.6	120.0	52.69	44.36

* From the Annual Report of the New Jersey Agricultural Experiment Station for 1921.

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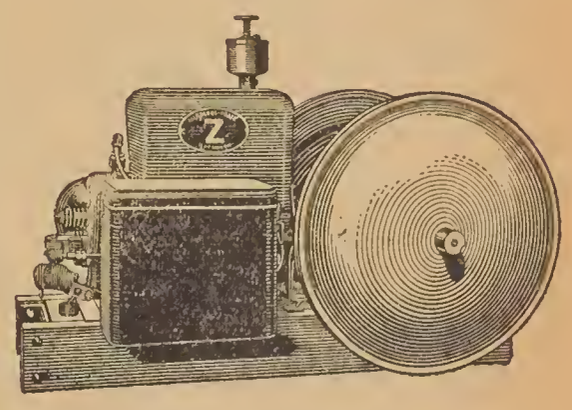

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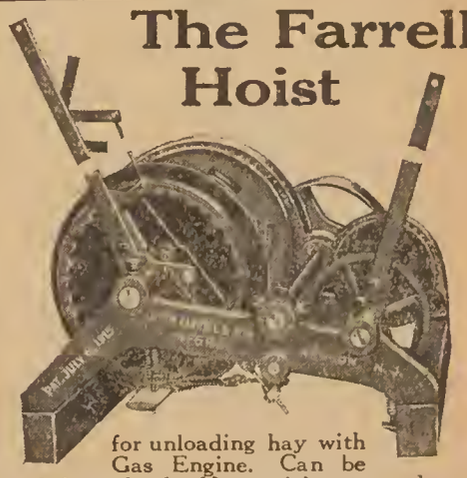

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Average Potato Crop in 1923

New York Reports Dangerous Increase in Cabbage

THE Empire State Potato Growers' Cooperative Association with headquarters at Rochester, N. Y., has been conducting a survey of New York State with reference to the proposed planting of potatoes and cabbage for 1923. Upwards of 800 replies were received from potato growers in New York who report only a slight decrease in acreage proposed this year. Compared to last year—approximately only 3½ per cent. "In other words," writes L. J. Steele, manager of the cooperative, "present indications point to a normal planting of potatoes in New York this season."

According to the report of Mr. Steele, in which he summarized the survey, on April 1, the potato growers of the United States expect to plant 91 per cent of last year's potato acreage which was 9 per cent above the 5 year average. In other words potato growers of the country contemplate planting a normal acreage in spite of the fact that last year's crop brought ruinously low prices. As a part of his report, Mr. Steele included an analysis of the causes of the rather sudden advance of potatoes in March and April when last fall and winter all indications pointed to a lower price this spring. Mr. Steele gives the following factors that were responsible for the sharp advance:

The unusually severe spring frosts which not only delayed but severely damaged the early southern potato crop. Prior to April 15, Florida had shipped only one-tenth as many cars compared to the same period last year.

Thousands of Bushels Undug

Shrinkage had its effect upon prices. There was excessive rotting and severe frost losses in storage and transit. When prices took such a sudden drop last fall, thousands upon thousands of bushels of potatoes rotted in the ground because it didn't pay to dig them and haul them to market.

Speculative buying was increased due to the fact that potato supplies in the East had been supposedly cleaned up earlier than usual, leaving many buyers to believe that there was going to be a shrinkage. This boosted the price for a time to a higher level than remaining supplies really warranted, primarily to lack of knowledge of stock on hand.

Cabbage Situation is Dangerous

In addition to handling potatoes, the Empire State Cooperative handles cabbage, which also was the subject of a survey. The cabbage situation is vastly different from the potato situation and a great deal more serious. Something like 300 cabbage growers in New York replied to Mr. Steele's questionnaire, signifying that they expected to increase their acreage on an average of approximately 30 per cent over last year.

This increase is dangerous. In view of the fact that the acreage of New York last year was larger than normal and the yield was better than average, resulting in a heavy crop, taking the State as a whole. In fact the crop was so large that thousands of tons were never harvested and thousands of tons were fed to livestock.

According to Mr. Steele, if New York cabbage growers plant 31 per cent increased acreage, and the season turns out to be a normal cabbage season, New York should have about 21,000 cars of cabbage to market compared with a normal production of about 12,000 cars. If the season of 1923 turns out to be as good a cabbage season as last year, it would mean a crop of over 23,000 cars, approximately double the average number which the State usually produces.

Latest information received from Michigan, indicates about the same as last year's big acreage, which was the biggest crop that State has ever produced.

In concluding his report on the early season situation, Mr. Steele emphasized the fact that the proposed acreage figures are what farmers expect to do on April 1. However, spring is very backward, farm labor is scarce and most farmers expect to do a little more than they can actually accomplish. In commenting on the cabbage outlook, he calls attention to the fact that growers should not let the high prices of February and early March influence their planting of this season.

The Florida and Texas crop were the smallest and poorest in many years. Had the southern crop been normal there is no question but what northern cabbage would have been a drug on the market during February and March.

TOO MUCH CABBAGE

A QUESTIONNAIRE sent out by the Empire State Potato Growers' Cooperative Association to some three hundred cabbage growers in New York State indicates that the growers are planning an approximate 31 per cent increase in acreage over last year. This is an extremely dangerous situation to which every prospective grower should give careful consideration.

Last year's yield was better than the average. Thousands of tons were never harvested, and thousands more were fed to livestock. As Mr. Steele, manager of the cooperative, so clearly points out in the article on this page, if there is a 31 per cent increased acreage and a normal cabbage season, New York State would grow 21,000 cars of cabbage, or nearly double the normal yield. There can be but one result of such great overproduction, and that is heavy loss for everybody concerned.—The Editors.

AMONG THE FARMERS ALONG THE SOUTHERN TIER

The maple sugar crop was scarcely half as much as usual. Farmers attribute the shortage to lack of frost in the ground. Such a heavy body of snow lay on the earth in the woods that frost did not go down very deep. At the Endicott-Johnson markets, syrup sold for $2.75 a gallon and sugar for 35 cents. Many sugar bushes were not tapped at all. Those who were compelled to hire help paid 30 cents an hour.

Indications are that about the usual acreage of potatoes will be put in in the Southern Tier. It takes more than one year of low prices to scare our farmers out. Seed potatoes are bringing about $1.25 a bushel.

Our farmers are showing more interest in sheep. The better price wool has been commanding and the outlook for more efficient cooperative marketing has a good deal to do with this. Some are hesitating about buying sheep because of dogs. My remedy is for every man to invest in some sheep. Then the dog problem will solve itself. —E. L. V.

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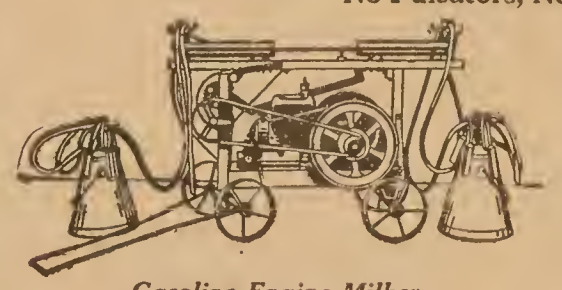

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Sugar Prices Hit Berries

New Jersey Growers Hard Hit If Prices Keep Up

STRAWBERRY growers throughout Central and Southern New Jersey are watching the sugar market more closely than crop prospects, in view of a generous crop of berries in sight and of the widely discussed consumers' boycotts against high prices for sugar. Rhubarb which is now being cut in quantity has already felt the effect of the consumer reaction to sugar prices. Peaches which will begin to go upon the markets from this State in early July will also feel the effects unless the sugar situation clears up meanwhile. Publicity and advertising to show that such food products as strawberries, rhubarb and peaches can be used without large quantities of sugar are already being discussed by the growers.

The Federal quarantine on the Japanese beetle, affecting the Burlington and Camden County areas of New Jersey and territory along the Delaware River in Eastern Pennsylvania, has now been modified so that products for immediate consumption from the farms in this section will have free movement into the Philadelphia area. This zoning system was provided to meet the need of farmers local to Philadelphia for an easier distribution for their crops. The new plan allows the movement of locally produced food products, but prevents the spread of the beetle to new areas by the exportation of farm products to points outside of the free area only under rigid inspection.

* * *

The Agricultural Contest Committee of Somerset County, N. J., has enrolled a large number of boys and girls in the contests which began in the county on May 1. The contest club work centers around the raising of calves, corn, chickens and vegetables and home economics.

Dr. W. H. Whiton is Chairman of the Committee working closely with H. C. Krebs, Superintendent of Schools, the Y. M. C. A., and the women's clubs of the county. The contest work is supported entirely on private funds. Even the county Holstein Association, the Granges and the New Jersey Guernsey Breeders' Association actively support the club work.

* * *

Following the very successful beekeepers' courses at the New Jersey State College of Agriculture in February and March, a second unit in these short courses is announced for the week of June 4 to 9. The courses are practical rather than theoretical and the instruction and laboratory work will be held in the apiary on the College Farm.

Those attending the courses learn from the experts at the college about the control of swarming, the handling of bees and summer management, which are topics uppermost in the minds of beekeepers in early June.

* * *

Although many cannery tomato growers are sitting tight and waiting further development on the cannery situation in Southwestern New Jersey, reports of $15 per ton on the farm or $18 delivered at the factory are heard as contract prices this year. Some growers claim to have made contracts around these figures although many are insistent for a quotation of at least $20 at the factory.—W. H. BULLOCK.

EMERSON HOUGH

IN the recent death of Emerson Hough, America lost one of the few remaining writers who was able to picture from first hand experience pioneer life and conditions as they really were. He did this so well that his historical stories, "The Mississippi Bubble," "The Covered Wagon" and "North of 36" are read eagerly by millions of people. His story "The Covered Wagon," now running in motion picture form in New York, fills the theater to capacity every night. Hough's work is good because he knew personally many of the men who settled the great West and helped to give us America as it is to-day. Although it is not so long in years since the West was an unknown country, civilization has traveled so fast that the old Texas cattle trails, the emigrant covered wagon with the inevitable plow strapped on behind, the buffalo, the Indians and the cowboys are fast becoming dim and almost forgotten traditions.

It is then with great regret that we view the passing of Emerson Hough who was able to entertain and instruct millions by bringing back to us so vividly accurate pictures of a breed of men who made the romantic history of another day.—The Editors.

PENNSYLVANIA GETS BEHIND STANDARD HAY GRADES

The move for standardization of market hay grades which has been advocated in a number of Eastern States is rapidly gaining ground in Pennsylvania, which markets outside of the State several thousand cars of which the New York City market alone absorbs more than 6,000. A recent investigation by the State shows that much of this market hay is graded low because it contains foreign material and an excessive amount of brown leaf surface. More careful grading which would bring more of the hay into the best grade, would not only increase the net return to the farmer, but it would relieve somewhat the surplus in second, third, and fourth grades which make up the bulk of hay offered.

The U. S. standard hay grades as adopted on the New York market are being very generally advocated and the following requirement for U. S. No. 1 timothy is being called to the attention of Pennsylvania growers: "Shall be cut not later than when in full bloom and may contain not more than 4 per cent of brown leaf surface, 2 per cent of brown or bleached heads and 5 per cent of bleached or off-colored stems. To be designated as Choice, No. 1 timothy, must have not more than 5 per cent brown leaf surface and no brown, bleached or discolored heads or stems."

Change in State Dog Law

Following an amendment to the Pennsylvania dog law at the current session of the State Legislature, the duty of appraisal of damage done by dogs goes back to local officials instead of resting in the personnel of the State Bureau of Animal Industry. Adjustment is now being made throughout the State in accord with these new provisions. If faithfully carried out the changes should be beneficial since the Bureau officials can confine themselves to the administration of the law and to the tightening up of loose enforcement in important counties.

Despite the existence of the dog law the number of the flocks in Pennsylvania has shown a decline within the last year and this in spite of the fact that prices of sheep and wool are considerably better than a year ago. Assistance is being given to local organizations and to live stock and poultry owners in protecting property against attacks of dogs.

More Steers Fed this Year

Steer feeding has been on the upgrade in Pennsylvania during the last year and data just available shows that 2 per cent more of the farmers of the State fattened steers this last winter, than in the previous season. Lancaster County comes first where over 50 per cent of the farmers fed steers this year. The counties of Adams, Perry, York and Dauphin have steers on a large per cent of farms; the State average shows that 7 per cent of the farmers are feeding steers.—W. H. B.

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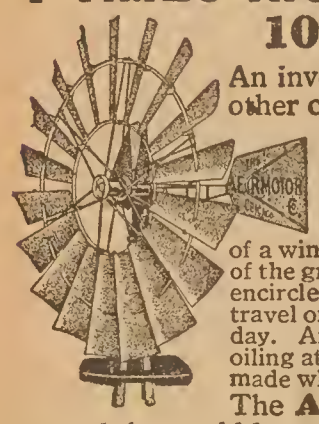

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Too Few Nests

One of the Reasons for Hens Becoming Egg-Eaters

By R. I. WEIGLEY

SOME time ago I visited the poultry farm of an acquaintance of mine. This consists of half a dozen buildings; the larger ones of which are divided into compartments. The old hens are in pens by themselves, as are also the laying pullets. Those that have not yet reached the laying age are in another building and then there is also a place for the breeders, roosters and hens.

I could see at a glance that everything was in first class order. The floor was covered with clean litter into which every grain of feed was thrown, thereby making the hens scratch; there was a finely balanced dry mash in the hoppers, there was grit, shells, charcoal, each at its proper place and there was good fresh water in the different fountains. In short, there was nothing that I could have done better or improved by rearrangements or changes. While I was taking note of the various equipment and their contents, I had been watching sharply for nests. Not a single one could I see. Finally, for I knew they were laying quite well at the time, I was forced to ask: "Where are the nests? I know they are laying and yet there are no nests in the buildings?"

Then even just as the owner was starting to point them out to me I perceived them hidden cunningly under the roosts. This in itself was good, if only the number had been doubled. How much better it would have been. I started to count the nests. There were a dozen, yes, about a dozen to a pen, this makes about six dozen nests in all for about 600 hens.

Few Nests Well Patronized

Then we went and lifted the board which hid the nests and I saw that most of the eggs were laid in a few nests. In each pen I found the same condition. The eggs were laid in a few of the nests. Seeing a china nest egg, I asked "Have you nest eggs." "Yes, for some of the nests," he answered. Most of the nests were not made as I would have made them. The hay was not padded and smoothed in the beautiful, cozy and inviting fashion which a hen likes and which makes her gurgle and nestle and snuggle with satisfaction. Other nests did not have enough hay, some was so fine in a few that it invited scratching on the part of inquisitive young pullets. Many others were almost bare.

After I reached my home I thought a long time about what I had seen. The chickens, as a breed, were all that could be desired, for they were all bred after the most up-to-date methods of selection and breeding, the equipment was of the very finest, the attention was all that could be desired and yet these beautiful White Leghorns had the reputation all during last winter of being egg eaters. At least I blamed this bad habit on the small number of nests, on the bad condition of most of them and on the few nest eggs.

When the Pullet Starts

When a pullet feels the time approaching for the laying of her first egg, she spends part of the preceding day, or two of them, in investigation. We commonly say "She's hunting a nest." I need not go into details about this, for everybody has seen it. It is a very pretty and pleasing sight. Then, she always wants to and expects to lay in this nest, her first love, every time.

How indignantly she looks and eyes her nest when she comes the next day to lay her egg if she finds it occupied by one or two or more of her sisters. She, if she is timid, will patiently wait her turn, but if she is of a pugnacious disposition she will try to forcibly take possession of her property. Many times a nest is filled with as many hens as can find a hold to cling thereto. All this results in crowding, suffocation, fighting—broken eggs in the nest and out because eggs laid in a crowded nest often fall outside and are broken. It also results in egg suppression. This is not good for the hen and causes fewer eggs or it causes the egg to be deposited on the floor or in a strange nest which also affects the hen badly.

If nest eggs are being used, see that every nest has one. If some nests are made beautiful and inviting, make all nests that way. If the material has become fine in some nests, remove it and replace it with some of the right kind. Then and only then will each nest stand an equal chance of being used and being the repository of the things we like to find. Let there be enough nests. Even if the nests are so small—only large enough for a hen to turn around in it—as they can possibly be, there will always be room enough for one or two others to try and crowd in. Let nothing worry or excite the hen or stay the singing of her laying song and there will be no losses caused by suppression, by broken eggs or egg eaters.

Nitrogen—Organic or Mineral?

(*Continued from page* 419)

the former was only about half as much as in the latter.

The highest percentage of nitrogen recovered from the nitrate cylinders was from the 40 per cent sand mixture, 62.05 per cent nitrogen. In the case of dried blood it was the 20 per cent sand mixture, returning 47.65 per cent of the nitrogen. The lowest recovery for both sources was in the 100 pure sand cylinder—25.49 per cent for nitrate and 36.41 for dried blood.

The yield of dry matter in all series but 100 per cent sand was greater from the nitrate-treated cylinders than from those which received the dried blood. Likewise, nitrate surpassed dried blood in the proportion of nitrogen recovered up to the same point with the exception of the 80 per cent sand, where the latter has a very slight, practically negligible, advantage.

Plants Took Up More Nitrogen From Nitrate of Soda

It is significant that nitrate of soda showed an average annual recovery of 47 per cent in the 80 and 90 per cent sand mixtures, and that for the 90 per cent sand mixture it exceeds dried blood by 5 per cent. It suggests that even in quite sandy soil the nitrate may be used to as good advantage as the organic sources of nitrogen if crops are kept on the land to utilize the nitrogen fully.

The danger of loss of nitrate of soda through leaching, therefore, does not appear to be so great as is commonly believed. Its great advantage seems to lie in its easy availability, and consequently the quick start which it gives the plant.

In reporting the results of the experiment, Dr. J. G. Lipman and Prof. A. W. Blair, under whose direction the work has been carried out, say:

"The reason for the superiority of the nitrate over the blood seems to be its ability to give the plant a good start during its early growth. With such a start it is able better to utilize soil moisture and the natural plant-food of the soil than the plant which, on account of having a slowly available source of nitrogen, gets a slow start. This interpretation seems to be borne out by the fact that in some cases the check cylinders gave a larger residual crop than the nitrate cylinders.

"It has been quite common to regard the organic sources of nitrogen as having a more permanent and lasting effect than the mineral sources, the latter having been regarded as subject to rather rapid loss through leaching. The results of this experiment do not bear out this idea, except in the case of soils which are almost pure sand. It would appear that the young growing plant rapidly utilizes the nitrogen of soluble nitrates and thus forges ahead of the plant which is depending upon sources not so readily available. It is possible that during the transformations of the nitrogen of these slowly available materials into soluble forms there is considerable loss."*

*From the Annual Report of the New Jersey Agricultural Experiment Station, for 1921.

Abortion—A Warning

A Disease That Is Universally Prevalent

By H. E. BABCOCK

I KNOW several owners of pure-bred herds who declare they have never had abortion in their herds. When they lose a calf, the cow "must have slipped on the ice." Why try to "kid" oneself and the public?

We recently sold a man five pure-bred Guernsey cows. While we were making the deal we told him the breeding record of each cow and figured out for him the percentage of abortion losses which our experience taught us he might expect. We did this because after we had once sold a novice a few cows he had some abortion and a prominent breeder proceeded to tell him what crooks we were.

Abortion is almost universally prevalent, I am convinced, I believe in accepting this condition as a fact with which dairymen, and particularly pure-bred breeders, have to deal.

Accepted as such, abortion loses much of its terror, and becomes an economic factor which adds to the expense of producing cattle and milk. We should deal with it in terms of percentages and make calculations accordingly.

Personally, my observations lead me to place no confidence in the advertisement of the man who advertises, "no abortion," and to extend little encouragement to the man who writes for animals out of herds "free from abortion." The sooner the real truth is out and met, the better.

Meanwhile the beginner in pure breds had better definitely recognize and face the abortion risk.

The editor's request for an article on abortion prompted these few paragraphs. But I cannot write an article. I never read a good one. The best authority I know is a good veterinarian, and he is none too good for the job at hand. May science make him better, and teach us all. In the meantime, the less laymen say about abortion control, the better.

* * *

TWO DOLLARS OR SIXTEEN?

RECENTLY I reported in the American Agriculturist upon our experience in removing the pure-bred Guernsey cow, Lady Rilma, on A. R. test, from a box stall to her old accustomed place in the stanchion row. The figures which I gave at that time showed that this cow gained slightly after the change. Of course, this gain may have been due to other facts than the shift to the stanchion row; on the other hand, the production figures quite clearly indicate that the cow did not suffer from the change. Meanwhile the time consumed in taking care of her was cut down very materially.

This experience, together with the growing demand for labor outdoors, led us to decide recently to take all of our other test cows out of box stalls and put them in stanchions.

Buy or Build?

There were, however, no stanchions available in the barn in which we wished to keep the cows, and it therefore became necessary to put some in. As the barn is equipped with patented steel stalls, we naturally went to our local dealer to find out what similar stalls would cost. As I recall it, the kind of stall we wanted figured something over $16. This cost was prohibitive, yet we wanted as comfortable a stall as possible, and so hesitated to go back to the old-fashioned rigid wooden stanchions.

In the emergency, my partner remembered a stall he had seen somewhere, which seemed to him to fill all our requirements. He built similar stalls, and we are so well satisfied with them that I am passing on the general instructions for what they are worth.

To construct them he set up 2 x 4's, the same as they would be were they uprights in the old-fashioned wooden stanchions. These 2 x 4's were set about 2½ feet apart, and along the inner side of each a steel rod was offset 2 or 3 inches. These steel rods came down within about 6 inches of the stanchion curb, and ran up about to the height of an ordinary cow's withers. On each rod was strung a short piece of chain. These two pieces of chain were then joined in the ring of a big snap. Each cow was provided with a leather collar with a big ring in it.

When the cows come into the barn they walk up and stick their heads between the 2 x 4's and the snap is snapped into the ring on the collar. The pieces of chain slide freely up and down on the steel rods, permitting the cow the utmost freedom, but they form a barrier which prevents her stepping into the manger. She can, however, by pulling back throw her head around and lick herself, and in fact have all of the freedom possible in the finest sort of a steel stall.

The rods, collars, and snaps cost slightly in excess of $2 per cow. We have just as comfortable—if not as sightly—a stall as the one for which the dealer wanted $16, and we are $14 per cow to the good.

* * *

DRAGGING ALFALFA

IN growing alfalfa the worst thing we have to contend with is smothering. New seeding put in with grains kills out completely whenever the grain lodges; cocks of alfalfa left too long on the ground kill out the plants under them; big snow banks do the same.

Worst of all, however, is the smothering that comes from the gradual encroachment of a grass sod. If we could control this I am certain that we would never need to plow up our alfalfa fields. There are places on our farm so stony that grass cannot grow there; three or four cuttings of alfalfa have been produced on these places each year for the past twenty years. Our trouble in holding a stand is not in these gravelly places, but in the more fertile soil.

Last year we plowed up eight acres of Grimm alfalfa; it took four big horses on a sulky plow to do the job. The plowing was done in the fall and we did not get to work on the piece until late the next spring. By that time there was practically as good a stand of alfalfa as though the field had never been plowed. In fact there was so much of it that we abandoned an attempt to control it and plant corn on the field as we had originally intended.

This experience with true Grimm alfalfa convinced me of its toughness; accordingly, this spring when I discovered that one of our best alfalfa fields was pretty well sodded over with grass I decided to give it a good dragging.

I had a big team and set a spring-tooth drag down to the last notch. Halfway across on my first bout I stopped and looked back. The demonstration was so awful that thereafter I kept my eyes on my team. Some spots I went over twice. Fortunately darkness came on and obliterated my handiwork, and the next morning I left home for a three-days trip.

When I returned I found on the dragged portion of the field scarcely a blade of grass showing green, but the alfalfa crowns stood up clean and thrifty. Apparently dragging did the work. I hope so, anyway, for I know that if I can keep out the grass my fields of Grimm alfalfa will last me my lifetime. This means less and less money for fertilizer and grass seed and less laborious plowing and dragging to reseed meadows.

LIVESTOCK SALES DATES

May 15—Knollwood Farm Guernsey Sale, Port Chester, N. Y., L. F. Herrick, Worcester, Mass., Sale Manager.

May 15-16—Lancona Farms Shorthorn Sale, Titusville, Pa.

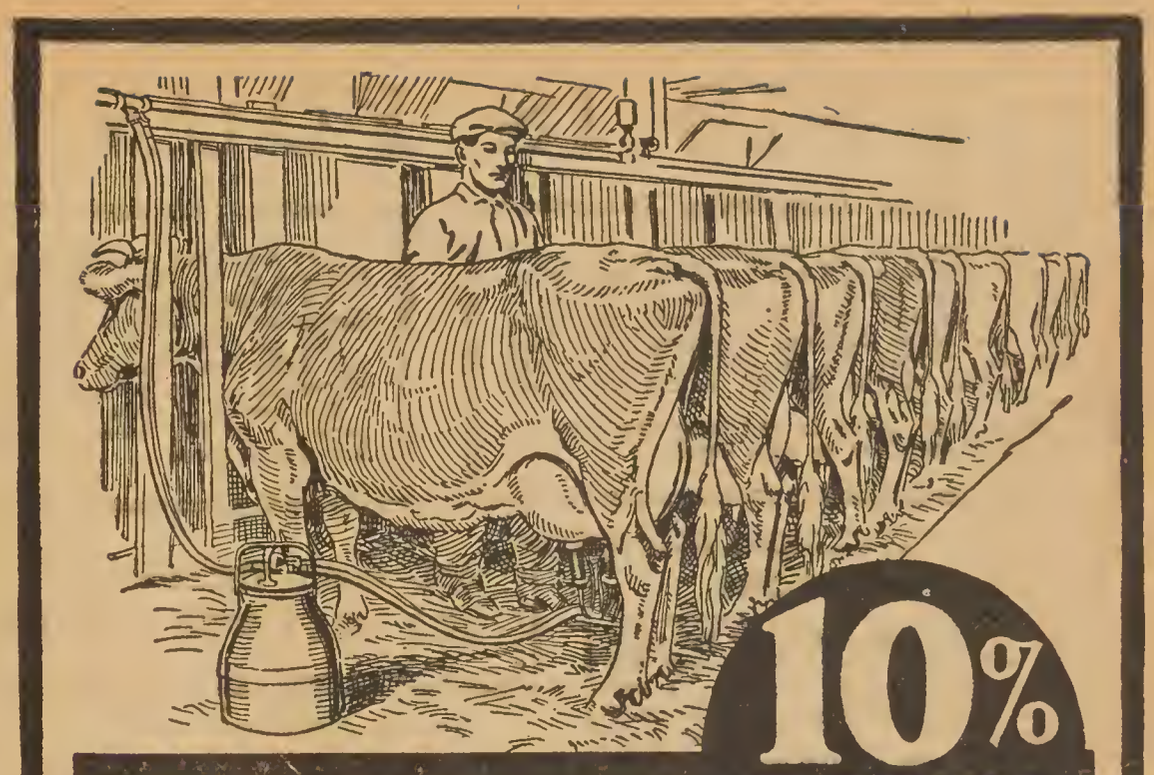
May 17—National Guernsey Sale, Devon, Pa., L. F. Herrick, Sale Manager.

May 18—Louis McL. Merryman, Semi-annual Sale, Timonium, Md.

May 21-26—First Ayrshire Spring Dairy Show, Boston, Mass.

May 31—American Guernsey Cattle Club, Pennsylvania Hotel, New York City.

June 1—Ayer-McKinney's Fourth Annual Sale of Jerseys, Meridale Farms, Meredith, N. Y.



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EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

Of American Agriculturist published weekly at 416 W. 13th St., New York, N. Y., for April 1, 1923.

State of New York, County of New York, ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Henry Morgenthau, Jr., who, having been duly sworn according to law, deposes and says that he is the president of American Agriculturist, Inc., and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and address of the publisher, editor, managing editor and business managers are:

Publisher, American Agriculturist, Inc., New York, N. Y.; Editor, E. R. Eastman, 1503 Miller St., Utica, N. Y.; Managing Editor,—None; Business Manager, Henry Morgenthau, Jr., New York, N. Y.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and address of stockholders owning or holding 1 per cent or more of the total amount of stock.) American Agriculturist, Inc., New York, N. Y.; Henry Morgenthau, Jr., Hopewell Junction, N. Y.; Henry Morgenthau, New York, N. Y.; Elinor F. Morgenthau, Hopewell Junction, N. Y.; E. R. Eastman, Utica, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear ou the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

Henry Morgenthau, Jr.
President.

Sworn to and subscribed before me this 2nd day of April, 1923.

Elsie B. Ganz (Weiss).

(Seal)

(My commission expires March, 1925.)

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BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

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Yet the whole matter was the sort that is nobody's fault and that everybody wants to straighten out. Fortunately, no tempers were lost, there was patience enough to go 'round and in the end everybody was happy including the Service Bureau, which played the part of the untangler of the puzzle.

An Old Story

It happened this way: Last Spring, over a year ago, an A. A. subscriber, shipped a case of eggs. He had shipped cases often to the New York house; so had his neighbors and relatives and no one had had any trouble. He sent other shipments before and after. The other shipments were paid for, but not that particular one. He complained to the company. The company answered politely but firmly that the case had been paid for. After about the fifth letter, the company decided that the wrong person must have received the check.

About this time, the Service Bureau took a hand. We asked for express receipts and found the case had been signed for. But still the company said their records were clear and evidently honestly felt that they had no responsibility. They, however, made a suggestion. In the same town lives a man with the same last name. One initial is also the same. He ships eggs to the same company.

A clue! We were off like Sherlock Holmes after it. But we were disappointed. The other Mr. K. produced checks, receipts and other proof to show he had been paid for cases he shipped but no more. After spending several weeks, in fact months, in correspondence, we were back where we started.

Then we tackled the express company. They were sure they had made no mistake. But like both Mr. K. and the company, they were willing to have their records examined and to answer questions patiently.

One Grand Mixup

To make a long story short, we gathered up proof here and there—our subscriber's story, the other Mr. K's receipts and statements, the express company's delivery sheets and the records of the New York commission house. Throughout it all we were convinced that it was simply a natural mix-up, with no intention to defraud anywhere and the results proved our belief.

The extra shipment was traced, signatures were compared and the mistaken credit corrected. Mr. K. received his check, the commission house thanked us for aiding them in solving the complications, and our subscriber, too, wrote that he gave us all the credit for making the adjustment and that he fully appreciated the trouble it had involved.

It was a case of "all's well that ends well", and as a matter of fact after it was closed and the letters filed away, we rather missed our old friend!

CHECKS LOST IN THE MAIL

Mr. J. O. B. of Pennsylvania lives some distance from his bank, and consequently mails checks for deposit. In August, 1921, he sent six checks in this manner, the money representing remittances from three different firms. The checks were lost in the mail between his post office and the bank. Two of the firms made no trouble in sending duplicates, but from one of them, a New York produce house, he never received any answer or attention.

Although the complaint had dragged along for two years, we undertook to obtain duplicates for Mr. B., and took up the matter with the New York firm. As a result, only a short time after the case came to our attention we had the pleasure of sending him the two checks, one for $12.84 and one for $12.24, in full settlement of the complaint.

Mr. B. said he had about given up the money, but nevertheless was extremely glad to have it, as we can well understand!

"AMAZED AND DELIGHTED"

After selling eggs to a nearby city market for some time, Mr. A. L. of Ghent, N. Y., unexpectedly had trouble with the firm.

The order was telephoned him, and the buyer promised to pay cash, as had been done before, on receipt of the goods. After waiting several days, Mr. L. reminded the concern of the transaction, and kept on reminding them without result.

Finally a check arrived. It was put through the bank, protested and returned to Mr. L. who had to pay the protest charges.

Then Mr. L. put the matter into our hands. We were able to send him, within a very short time, a check for $51.76—and it was certified.

As a result he wrote: "I am amazed and delighted to find how quickly you settled this claim, which would have cost me much in time and money to collect, and like many other readers of the American Agriculturist, I am deeply grateful for your kind interest and effort.

INVEST—DON'T SPECULATE

Financial Department:—Would you think an investment in the National Life Preserver Company safe? Also please give me information concerning the American Bond and Mortgage Company, Inc. of New York.—W. B. S., New York.

Shares in the National Life Preserver are not investments at all; they are speculations. American Bond and Mortgage sells bonds based on real estate, which vary in merit according to the property on which they are a lien. They cannot be passed upon as a whole. If you will name any specific issue, we will give our opinion.

* * *

Financial Department:—Two years ago I purchased some stock in the Crusader Film Corporation, 25 West 43rd Street, New York City. Could you inform me if this company is reliable and if the stock is worth hanging on to? I have never received any interest The agent says that he will sell my stock for me, but insists that it will be paying big in a very short time?—E. P., New York.

Stock of this kind is speculative in the highest degree and in no way suitable for investment. Unless you can afford to assume the risk involved in the moving-picture business, which even with the best of companies is very high, we think you ought to dispose of the stock if you can.

* * *

Financial Department:—Please let me know if the Yerkes Coupling Steel Tie Co., stock is O. K. Also if the Automatic Transportation Company shares are all right? (Circular attached)—C. E., Pennsylvania.

We have no information about Yerkes Coupling. Automatic Transportation stock is speculative in our opinion. Unless you have large resources it is very foolish to buy stock of this kind.

* * *

Financial Department:—I have 25 shares in the M-V. All-Weather Train Controller Company, Inc. (Letter attached) and am about to buy 25 more, but I would like to ask you about this company first. Do you think shares in this company are a good business risk?—F. S. W., New York.

We think these shares are highly speculative and advise against their purchase. As far as we know the stock has no market value.

CHARGE TO PROFIT AND LOSS

Financial Department:—Would you please give me information in reference to the *Cain Oil Company* of Texas? (Circular attached)—J. N. H., New York.

We never heard of the Cain Oil Company, but we should guess it was well named. As far as we are aware there is no more certain method of losing money than buying stock in oil promotions.

Advertisement

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437
Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

Advertisement

The Valley of the Giants—*By Peter B. Kyne*

A VOICE, deep, resonant, kindly, spoke a few feet away. "Who is it?"

Shirley, startled, turned swiftly. Seated across the little amphitheatre in a lumberjack's easy-chair fashioned from an old barrel, John Cardigan sat, his sightless gaze bent upon her. "Who is it?" he repeated.

"Shirley Sumner," she answered. "You do not know me, Mr. Cardigan."

"And why did you come here alone?" he queried.

"I—I wanted to think."

"You mean you wanted to think clearly, my dear. Ah, yes, this is the place for thoughts." He was silent a moment. Then: "You were thinking aloud, Miss Shirley Summer. And I think you rearranged my roses. Didn't I have them on her grave?"

"Yes Mr. Cardigan. I was merely making room for some wild flowers I had gathered."

"Indeed. Then you knew—about her being here."

"Yes, sir. When I was a very little girl, I met your son Bryce. He gave me a ride on his Indian pony, and we came here. So I remember."

"Well, I declare. Ten years ago, eh? You've met Bryce since his return to Sequoia, I believe. He's quite a fellow now."

"He is indeed."

"It was mighty fine of you to bring flowers," he announced presently. "I appreciate that. I wish I could see you. You must be a dear, thoughtful girl. Won't you sit down and talk to me?"

"I should be glad to," she answered, and seated herself on the brown carpet of redwood twigs close to his chair.

"I hadn't been up here for nearly two years until recently. You see I—I don't own the Valley of the Giants any more," he went on.

"Indeed. To whom have you sold it?"

"I do not know, Miss Sumner. I had to sell; I sacrificed my sentiment for my boy. However, the new owner has been wonderfully kind and thoughtful. If that new owner could only understand how truly grateful I am—how profoundly her courtesy touches me——"

"*Her* courtesy?" Shirley echoed. "Did a woman buy the Giants?"

He smiled down at her. "Why, certainly. Who but a woman—and a dear, kind, thoughtful woman—would have thought to have this chair made and brought up here for me?"

Fell a long silence between them; then John Cardigan's trembling hand went groping out toward the girl's. "Why, how stupid of me not to have guessed it immediately!" he said. "You are the new owner."

SHE took his great toil-worn hand. "Oh, you must not tell anybody! You mustn't," she cried.

He put his hand on her shoulder as she knelt before him. "Good land of love, girl, what made you do it?"

"I knew it hurt you terribly to sell your Giants. I understood, also, why you were forced to sell; so I—well, I decided the Giants would be safer in my possession than in my uncle's. In all probability he would have logged this valley."

"That does not explain satisfactorily, to me, why you took sides with a stranger against your own kin," John Cardigan persisted.

"Well," Shirley made answer, glad that he could not see the flush of confusion and embarrassment that crimsoned her cheek, "when I came to Sequoia last May, your son and I met, quite accidentally. Then we recalled having met as children, and presently I gathered from his conversation that he and his John-partner, as he called you, were very dear to each other. And later, when Bryce and Moire McTavish told me about you—how you felt your responsibility toward your employees and the community—well, I just couldn't help a leaning toward John-partner and John-partner's boy, because the boy was so fine and true to his father's ideals."

"Ah, he's a man. He is indeed," old John Cardigan murmured proudly. "I dare say you'll never get to know him intimately, but if you should——"

"I know him intimately," she corrected him. "He saved my life the day the log-train ran away. And that was another reason."

"Wonderful," murmured John Cardigan, "wonderful! But still you haven't told me why you paid a hundred thousand dollars for the Giants when you could have bought them for fifty thousand. However, if you do not care to tell me, I shall not insist."

"I would rather not tell you," she answered.

A gentle, prescient smile fringed his old mouth; he wagged his leonine head as if to say "Why should I ask, when I know?" Fell again a restful silence. Then:

"Am I allowed one guess, Miss Shirley Sumner?"

"Yes, but you would never guess the reason."

"I am a very wise old man. My son is proud, manly, independent. He needed a hundred thousand dollars; you knew it. You wanted to loan him some money, but—you couldn't. So you bought my Valley of the Giants at a preposterous price and kept your action a secret." And he patted her hand gently, as if to silence any denial, while far down the skid-road a voice—a half-trained baritone—floated faintly to them through the forest.

"What is that?" Shirley cried.

"That is my son, coming to fetch his old daddy home," replied John Cardigan. "That thing he's howling is an Indian war-song or pæan of triumph—something his nurse taught him when he wore pinafores. If you'll excuse me, Miss Shirley Sumner, I'll leave you now. I generally contrive to meet him on the trail."

Shirley was tremendously relieved. She did not wish to meet Bryce Cardigan to-day, and she was distinctly grateful to John Cardigan for his consideration in sparing her an interview. She seated herself in the lumberjack's easy-chair, and chin in hand gave herself up to meditation.

A couple of hundred yards down the trail Bryce met his father. "Hello, John Cardigan!" he called. "What do you mean by skallyhooting through these woods without a pilot?"

"You great overgrown duffer," his father retorted affectionately, "I thought you'd never come." He reached into his pocket for a handkerchief, but failed to find it and searched through another pocket and still another. "By gravy, son," he remarked presently, "I do believe I left my silk handkerchief—the one Moira gave me for my last birthday—up yonder. I wouldn't lose that handkerchief for a farm. Skip along and find it for me, son. I'll wait for you here. Don't worry."

"I'll be back in a pig's whisper," his son replied, and started briskly up the trail, while his father smiled his prescient little smile.

Bryce's brisk step aroused Shirley from her reverie. When she looked up, he was standing in the centre of the little amphitheatre gazing at her.

"You—you!" she stammered, and rose as if to flee.

"The governor sent me back to look for his handkerchief, Shirley," he explained. "He didn't tell me you were here. Guess he didn't hear you." He advanced smilingly toward her. "I'm tremendously glad to see you to-day, Shirley," he said, and paused beside her. "Fate has been singularly kind to me. Indeed, I've been pondering all day as to just how I was to arrange a private little chat with you, without calling at your uncle's house."

"I DON'T feel like chatting to-day," she answered a little drearily—and then he noted her wet lashes. Instantly he was on one knee beside her; his big left arm went around her, and when her hands went to her face, he drew them gently away.

"I've waited too long, sweetheart," he murmured. "Thank God, I can tell you at last, I love you, Shirley. I've loved you from that first day we met at the station, and all these months of strife and repression have served to make me love you the more."

He drew her head down on his breast, his honest brown eyes gazed earnestly, wistfully into hers. "I love you," he whispered. "All that I have—all that I am—all that I hope to be—I offer to you, Shirley Sumner. You are not indifferent to me, dear. I know you're not; but tell me—answer me——"

"Oh, my dear, impulsive, gentle big sweetheart," she whispered—and then her arms went around his neck, and the fullness of her happiness found vent in tears he did not seek to have her repress.

"Oh, my love!" he cried happily, "I hadn't dared dream of such happiness until to-day."

"Why to-day, Bryce?" she interrupted him.

He took her adorable little nose in his thumb and forefinger and tweaked it gently. "The light began to dawn yesterday, my dear little enemy, following an interesting half-hour with His Honor the Mayor. Acting upon suspicion only, I told Poundstone I was prepared to send him to the rock-pile if he didn't behave himself in the matter of my permanent franchise for the N. C. O.—and the oily old invertebrate wept and promised me anything if I wouldn't disgrace him. So I promised I wouldn't do anything until the franchise matter should be definitely settled—after which I returned to my office, to find awaiting me there the right-of-way man for the Northwestern Pacific. It seems the Northwestern Pacific has decided to build up from Willits, and all that powwow and publicity of Buck Ogilvy's spurred them to action. They figured the C. M. & St. P. was back of the N. C. O."

"Why did they think that, dear?"

"That amazing rascal Buck Ogilvy used to be a C. M. & St. P. man; they thought they traced an analogy, I dare says. At any rate, this right-of-way man was mighty anxious to know whether or not the N. C. O. had purchased from the Cardigan Redwood Lumber Company a site for a terminus on tidewater (we control all the deep-water frontage on the Bay), and when I told him the deal had not yet been closed, he started to close one with me."

"Did you close?"

"My dear girl, will a duck swim? Of course I closed. I sold three quarters of all we had, for three quarters of a million dollars, and an hour ago I received a wire from my attorney in San Francisco informing me that the money had been deposited in escrow there awaiting formal deed. That money puts the Cardigan Redwood Lumber Company in the clear—no receivership for us now, my dear one. And I'm going right ahead building of the N. C. O."

"Bryce," Shirley declared, "haven't I always told you I'd never permit you to build the N. C. O.?"

"Of course," he replied, "but surely you're going to withdraw your objections now."

"I am not. You must choose between the N. C. O. and me." And she met his surprised gaze unflinchingly.

HE stood up and towered above her sternly. "I must build it, Shirley. I've contracted to do it, and I must keep faith with Gregory of the Trinidad Timber Company."

She came closer to him. Suddenly the blaze in her violet eyes gave way to one of mirth. "Oh, you dear, big booby!" she cried. "I was just testing you." And she clung to him, laughing. "You always beat me down—you always win. Bryce, dear, I'm the Laguna Grande Lumber Company, and I repeat for the last time that you shall *not* build the N. C. O.—because I'm going to merge with the Cardigan Redwood Lumber Company, and then my railroad shall be your railroad, and we'll extend it and haul Gregory's logs for him also."

"God bless my mildewed soul!" he murmured, and drew her to him.

In the gathering dust they walked down the trail. Beside the madrone tree John Cardigan waited patiently.

"Well," he queried when they joined him, "did you find my handkerchief for me, son?"

"I didn't find your handkerchief, John Cardigan," Bryce answered, "but I did find what I suspect you sent me back for—and that is a perfectly wonderful daughter-in-law for you."

(*Continued on page* 428)

The Amphitheatre where the Primeval Giants grew

A Nursery Rhyme Quilt For the A. A. Baby

Twenty Easily Embroidered Squares Represent Children's Beloved Mother Goose Songs

DREAMS of Tom, Tom the Piper's Son, Taffy the Welchman, Curly-Locks, and Simple Simon will be sure to come to the child who sleeps under this Mother Goose Quilt.

For each square represents a familiar nursery rhyme, and when the twenty squares are put together, lo and behold! there is a wonderful quilt to "wrap the Baby Bunting in!"

The picture shows the quilt put together. Each square, you will see, is made up of quaint outlines and even a very little girl or boy can pick out Mary and her famous lamb, the cow jumping over the moon, and other familiar characters from Mother Goose.

The nursery quilt has many advantages besides its appealing rhymes. Each square can be worked separately so that it can be carried in an embroidery bag, as "pick-up-work" without the whole quilt, which would be more bulky.

Then, too, the simplest outline stitch, which works so quickly, is used. It takes about 15 minutes to make each square. Yet if the designs are done in delft blue, for instance, on white, the effect is most unusual. The original quilt used the simplest materials, but evolved a very pretty one by mounting the white squares on blue cambric. The squares may be close together or more widely separated, according to the size of the bed or crib the quilt is to cover.

Something for the Little Girl to Make

Another idea—this quilt would make a splendid thing to use in teaching the little girl to use her needle. If she has a baby brother or sister it will be a work of love for her to stitch the squares one by one. Mother can sew them together for her and finish the hem.

And here's another idea! If you fasten the squares together with the embroidery floss in open work effect, your quilt will never be mussed by folding and keeping in a drawer. You can fold on the lines of the connecting stitches and make it a very small size without rumpling a single square.

The American Agriculturist has made a special arrangement with the designer of the Mother Goose quilt, Ruby Short McKim, which permits us to offer transfer designs for the entire set of twenty squares for only 65c.

How to Transfer the Picture

You know how to use the transfer patterns, don't you? Have your squares of material ready, allowing a fair margin so that the design does not look crowded. Then put the tissue paper transfer face down on the material, being very sure to have it perfectly straight and in the exact center. Run a hot iron over the paper and when you lift it, you will find your design neatly transferred to the material.

A fairly heavy grade of embroidery cotton or silk show up effectively. Outline stitch (you will notice the pictures are made from straight lines only) is the best to use. You can add any fancy stitches at the edges that you wish but the simpler this quilt is kept, the prettier it will be.

The outside edges may be hemmed, by machine or hand, or could be turned up and fastened with French knots, featherstitching or any pretty finish, that is a little distinctive.

In addition to furnishing the transfer patterns, we will also send, with every set, a printed copy of the Mother Goose rhymes illustrated. If the little girl tries her hand at the quilt she will enjoy memorizing the simple lines as she takes the stitches.

Grandmother Made Quilts, Too

Surely great grandmother, whose cross-stitched sampler hangs on the wall, or grandmother, who started her first quilt while still a very little girl, never had a more fascinating subject to work on than this! The handicraft editor, who is always on the lookout for original designs, searched for a long time before she found this quilt and then felt very proud to have the exclusive right to its use. The price of the transfer designs just covers the cost, and American Agriculturist readers who buy the set may be sure that they not only have a real "bargain" but also can make, with very little work, something quite unique to cover the baby's crib.

The twenty blocks, as shown in the picture represent the following rhymes: 1, Mary had a little Lamb; 2, Hey, diddle, diddle; 3, See Saw, Margery Daw; 4, There was an old woman tossed up in a basket; 5, There was a Crooked Man; 6, Barber, Barber, Shave a Pig; 7, The Queen of Hearts; 8, Sing a Song of Sixpence; 9, As I went up a Primrose Hill; 10, Little Tommy Tucker; 11, Tom Tom, the Piper's Son; 12, Polly put the Kettle on; 13, Ding, Dong, Dell; 14, Simple Simon met a Pieman; 15, Three Blind Mice; 16, Taffy was a Welchman; 17, Goosey Goosey, Gander; 18, Curly Locks; 19, A dillor a Dollar, and 20, Blow, Wind Blow.

Send 65c in stamps or money order for the set of quilt transfer blocks with rhymes for each to Embroidery Department, American Agriculturist, 461 Fourth Ave., New York City.

PIN-MONEY SUGGESTIONS

Yes, the quilt on this page would sell readily in thrift and gift shops during the summer, but that is not our only suggestion for bringing in the extra dollars. These are two ideas sent by Bell Ellicott Palmer, who knows that both have worked out successfully:

Culled Fruit Possibilities

Last summer one farmer's wife in Illinois spent an hour or two in the cool of morning or evening, turning a few jars of ripe fruit into jelly or preserves or making pickles.

A friend of hers in a nearby town owned a little home, the living-room of which had a bay-window facing the street. Here they put up a counter covered with white oil-cloth. All the jellies, pickles and preserves the country friend could possibly send, sold readily at noon-time to the teachers and children of the next-door school. Often, too, mothers or automobilists took away baskets of the dainty sweets. The profits, shared equally between the two, averaged from $30 to $50 a month apiece. During the holidays they averaged $100 each, as big baskets were purchased for invalids shut-ins or hospitals.

One elderly woman planted a 30-foot square in herbs—mint, sage, lavender, balsam, ambrosia and the like; also lemon-verbena, rose-geranium and parsley. After the soil was once dug for her, it was only a pleasure to plant and cultivate, as these herbs and plants almost take care of themselves.

When the leaves were ready to pick, grandmother gathered and dried them, then filled little white tarleton bags. A grocer-store proprietor gladly sold them, for his customers loved to have delicate old time fragrance in their clothes chest. Mint and parsley were purchased by the epicurean, as even in their dried state they are excellent for winter seasoning. Small bags of rose leaves, lemon-verbena or rose-geranium also sold readily.

The bags sold at 20 cents for the small size; 25-50 cents for the larger. The sofa-cushion size of crushed fragrant leaves went at $1. The merchant charged 10 per cent as his commission. In one year, grandmother netted $150.

THAT OLD RAIN-COAT

An old raincoat of rubberized cloth has many useful possibilities. Who doesn't dread the return trip from a bathing expedition with piles of soggy suits and shoes in the bottom of the car? From this rubberized cloth, make bags into which the wet things may be thrust, and the car will be neat, with no possibilities of accidental wettings to clean garments.

Another useful article is a roomy flat pocket to be fastened to the rug-rail of the car. Here may safely be placed the collection of "treasures" joyously accumulated by the children—and sometimes by the adults—on summer jaunts!

A similar collection of pockets permanently placed on the wall of the back entry or woodhouse makes a good receptacle for wet rubbers and the like.

An oblong of the cloth makes a convenient apron for such jobs as washing muddy vegetables and scrubbing.—A. M. A.

ASK YOUR GROCER FOR

WHITE HOUSE COFFEE

1-3-5 lb CARTONS ONLY

The best high grade coffee sold by anybody-anywhere.

NEVER DISAPPOINTS

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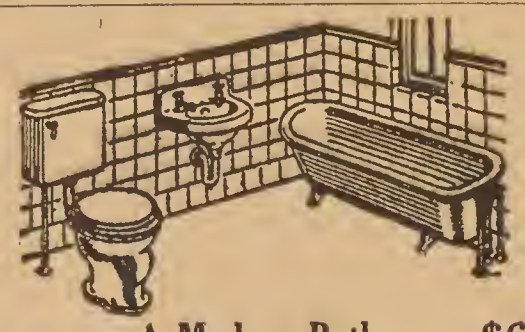
HOME SUPPLY CO., 131 Duane St., Dept. 436, New York City



The "Pride"

Send for Catalog 40

A Modern Bathroom, $60

Just one of our wonderful bargains. Set comprises a 4, 4½ or 5 foot iron enameled roll rim bath tub, one 19 inch roll rim enameled flat-back lavatory, and a syphon action, wash-down water closet with porcelain tank and oak post hinge seat; all china index faucets, nickel-plated traps, and all nickel-plated heavy fittings. J.M.SEIDENBERG CO., Inc. 254 W. 34 St. Bet. 7th and 8th Aves. N.Y.C.

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As a "First Aid" and a reliable, every day healing ointment to have on hand for treating cuts or wounds on man or beast, you will find CORONA WOOL FAT unexcelled. For Chapped Hands, Chilblains, Cuts, Sores, Corns, Collar Boils, Split Hoofs, Scratches, Sore Teats, Caked Udders, etc.—it relieves the pain promptly and heals without a scar. A household and barn remedy you will never be without after once using.

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gladly mailed so you can test it. Write today. Sold by dealers—if yours can't supply you—write us.

THE CORONA MFG. CO. 11 Corona Block, KENTON, O.

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We manufacture wool, as it is sheared from the sheep, into Bed Blankets, Comfort Batting, Robes, Knitting Yarn and Flannel. Write for particulars to THE SHIPPENSBURG WOOLEN MILL, Shippensburg, Pa.

PATENTS Write today for free instruction book and "Evidence of Conception" blank. Send sketch or model for personal opinion. CLARENCE O'BRIEN, Registered Patent Lawyer, 904 Southern Building, Washington, : - : D. C.

AGENTS WANTED

COMBINATION HAIR NET PACK 25c

SELF-THREADING NEEDLES 10c

FULL LINE QUICK SELLERS FOR AGENTS

S. DAVIS, 325 Amsterdam Avenue, NEW YORK CITY

For Mothers and Babies

More About the Sheppard-Towner Bill and Its Aims

WHILE the death rates from tuberculosis, pneumonia, typhoid fever and diptheria have decreased year after year, until the average "expectancy of life" has lengthened a full decade since health statistics began to be studied, one record of mortality has remained practically at the same figure since 1900. That is the death rate from causes connected with childbirth. Our business men and women, professionals, farmers, laborers, all stand a chance of living ten years or so longer than did those in similar occupations twenty-five years ago, but our mothers still face possible death in the proportion of a less health-enlightened era.

As this unwelcome fact was gradually forced upon our notice and we saw that, among twenty civilized countries keeping such records, the United States stood seventeenth on the list in maternal mortality, the women of the country began to protest vigorously against the indifference and short-sighted "economy" which denied mothers and babies the right sort of care.

For public health is purchasable and one experiment after another demonstrated that where there were visiting nurses, maternity centers and well-baby clinics, the mortality rate instantly fell far below the average National figure. In one of New York City's most congested tenement districts, where an expert corps of public health nurses visit practically every family, the mother and baby death rate is just half than for a typical, American up-State community boasting fresh air, country food and an apparently splendid chance for every baby born within its boundaries.

Investing in Health is Economy

But could both the Government and the mass of people be made to understand that the ounce of prevention, though it meant the investment of out-and-out cash, was far cheaper than the many pounds of cure—or rather, the cost in deaths, and in illness and permanent suffering? The lesson was driven home so simply and well that the answer to the question, in the shape of the Sheppard-Towner Bill, passed Congress and the House of Representatives triumphantly and is now in working order in twenty-three States, and up for acceptance in the rest.

Just what is the Sheppard-Towner Bill and why does each State have to accept it? The bill provides for a Federal appropriation of funds, the money to be spent "for the promotion of the welfare and hygiene of maternity and infancy." But it does not impose a Federal program upon the States. That is why each State must accept the law for itself.

For each State must vote a similar appropriation, and the joint fund thus created is administered entirely by State officials. The bill merely stimulates the individual States to act by providing a Federal fund.

New York needs the Enabling Act

Nor will any effort be made to force expectant mothers to receive help and advice. It seems amazing that any mother should resent an effort to make it easy for her to get the proper care for herself and her baby, and the bill is so framed that any distrust of its methods can arise only from complete misunderstanding.

The Enabling Act, by which New York would accept a Federal endowment of $80,000 as soon as a State fund of $75,000 was appropriated, has had a chequered career in our Senate and Assembly. No one has attempted to deny the basic facts on which the act was framed. No one has contradicted—or could contradict—the statement that literally hundreds of lives would be saved within the next year and thereafter, by the passage of this single bit of legislation. But other States have seen the purely selfish benefits of the act, as well as its great humanitarian purpose, far more clearly than has the Empire State.

New York will eventually pass the Sheppard-Towner Enabling Act. Postponing it means unnecessary loss of life. It means, in one up-State county alone, the death of 120 babies out of every thousand. "The welfare and hygiene of maternity and infancy" to quote the bill itself, demand its passage and the sooner it is passed, the sooner unnecessary loss of life will be checked.

In the Valley of the Giants

(*Continued from page* 426)

John Cardigan smiled and held out his arms for her. "This," he said, "is the happiest day that I have known since my boy was born."

CHAPTER XXXIV

SOME days later, Bryce, riding the top log on the end truck of a long train just in from Cardigan's woods in Township Nine, dropped from the end of the log as the train crawled through the millyard. He hailed Buck Ogilvy in the door of the office.

"Big doings up on Little Laurel Creek, Buck."

"Do tell!" Mr. Ogilvy murmured morosely.

"It was great," Bryce continued. "Old Duncan McTavish returned. His year on the mourner's-bench expired yesterday, and he came back to claim his old job."

"He's one year too late," Ogilvy declared. "I wouldn't let Jules Rondeau quit for a farm. Some woods-boss, that—and his first job with this company was the dirtiest you could hand him—smearing grease on the skid-road at a dollar and a half a day and found. He *can* get out the logs, hang his rascally hide, and I'm for him."

"I'm afraid you haven't anything to say about it, Buck," Bryce replied dryly.

"I haven't, eh? Well, any time you deny me the privilege of hiring and firing, you're going to be out the service of a rattling good general manager, my son."

"Oh, very well," Bryce laughed. "Have it your own way. Only if you can drive out Duncan McTavish, I'd like to see you do it. Old Duncan is in possession."

"What do you mean—in possession?"

"At ten o'clock this morning McTavish appeared at our log-landing. The whiskey-fat was all gone, and he appeared forty years old instead of sixty. With a whoop he came straight for Jules Rondeau. The big Canuck saw him coming and knew what his visit portended—so he wasn't taken unawares. It was a case of fight for his job—and Rondeau fought."

"The devil you say!"

"I do—and there was the devil to pay. It was a rough and tumble—just the kind of fight Rondeau likes. Nevertheless old Duncan floored him. While he's been away somebody taught him the hammer-lock and the crotch-hold and a few more fancy ones, and he got to work on Rondeau in a hurry. In fact, he had to, for if the tussle had gone over five minutes, Rondeau's youth would have decided the issue."

"And Rondeau was whipped?"

"To a whisper. Mac floored him, climbed him, and choked him until he beat the ground with his free hand in token of surrender; whereupon old Duncan let him up, and Rondeau went to his shanty and packed. The last I saw of him he was headed over the hill to Camp Two on Laguna Grande. He'll probably chase that assistant woods-boss out of Shirley's woods. I don't care if he does. What interests me is the fact that the old Cardigan woods-boss is back and I'm mighty glad of it. The old horsethief has had his lesson and I think he's cured."

"The infamous old outlaw!"

"Mac knows the San Hedrin as I know my own pocket. He'll be a tower of strength when we open up that tract after the railroad builds in. By the way, has my dad been down this morning?"

"Yes. Moira read the mail to him and then took him up to the Valley of the Giants. He said he wanted to do a little quiet figuring on that new steam schooner you're thinking of building. He thinks she ought to be bigger—big enough to carry two million feet."

(*Continued next week*)

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For Strawberry Time

Recipes, Patterns and Other Household News

THE strawberry season is all too short, so the luscious red berries should be used in every possible way before the beds are empty. These are four tested recipes from the land of real shortcake. All the family will enjoy these delicacies as they are made in Kentucky.

Strawberry Shortcake

One cup butter; 1 cup sugar; 1 egg; pinch of salt; 1 cup milk; 1 teaspoon vanilla; ½ pint whipping cream; 1 quart berries; 2 cups flour; 3 level teaspoons baking powder.

Cream butter and sugar; add beaten egg and part of dry ingredients, which have been sifted together, then alternate milk and remainder of dry ingredients. Flavor and bake in moderate oven 20 or 30 minutes. Cool, split, and spread with the cream well whipped, and crushed, sweetened berries. Garnish top with cream and whole berries.

Strawberry Jelly

Cover the contents of an envelope of gelatin with ½ cup cold water and allow to stand about five minutes. Add ½ cup boiling water, ¼ cup lemon juice, 1¾ cups strawberry juice and one cup of sugar. Stand on the back of the range until all sugar is dissolved. Strain into a wet mold and set in a cool place to harden. Serve with cream, plain or whipped, or with a soft-boiled custard.

Strawberry Ice Cream

One quart cream; 1 cup sugar; 1 teaspoon vanilla; 1 quart strawberries which have been washed, hulled, crushed and sweetened slightly.

When frozen allow to stand—well packed—for an hour or more to ripen.

Strawberry Sherbert

One quart cream; 1 cup sugar; 3 cups berries; juice of two lemons.

Put sugar over berries and allow to dissolve. Mix with very cold cream and freeze.—LENNIE HOLLON LAND.

NEXT WEEK—"THE BROWN MOUSE"

JIM IRWIN changed things in Woodruff District—but it took a woman's scorn to get him underway. There "The Brown Mouse" came in, and Jennie Woodruff began to realize that you can't always stop something you've started.

Next week, Herbert Quick's story of farm life will begin on the serial page. It is called "The Brown Mouse" and it takes some time to find out what the title means, but from the first you will like Jim Irwin, and Jennie too, provoking as she sometimes is.

Don't miss a number. You will want to keep them all, for the story is worth several re-readings.

ENCOURAGING THE BOY

I was much interested in Jean Howard's experiences about "Son's Calf, Father's Cow". There have been too many such happenings, so thought I would tell you how my son-in-law has solved the problem so that there is good will and harmony between father and son.

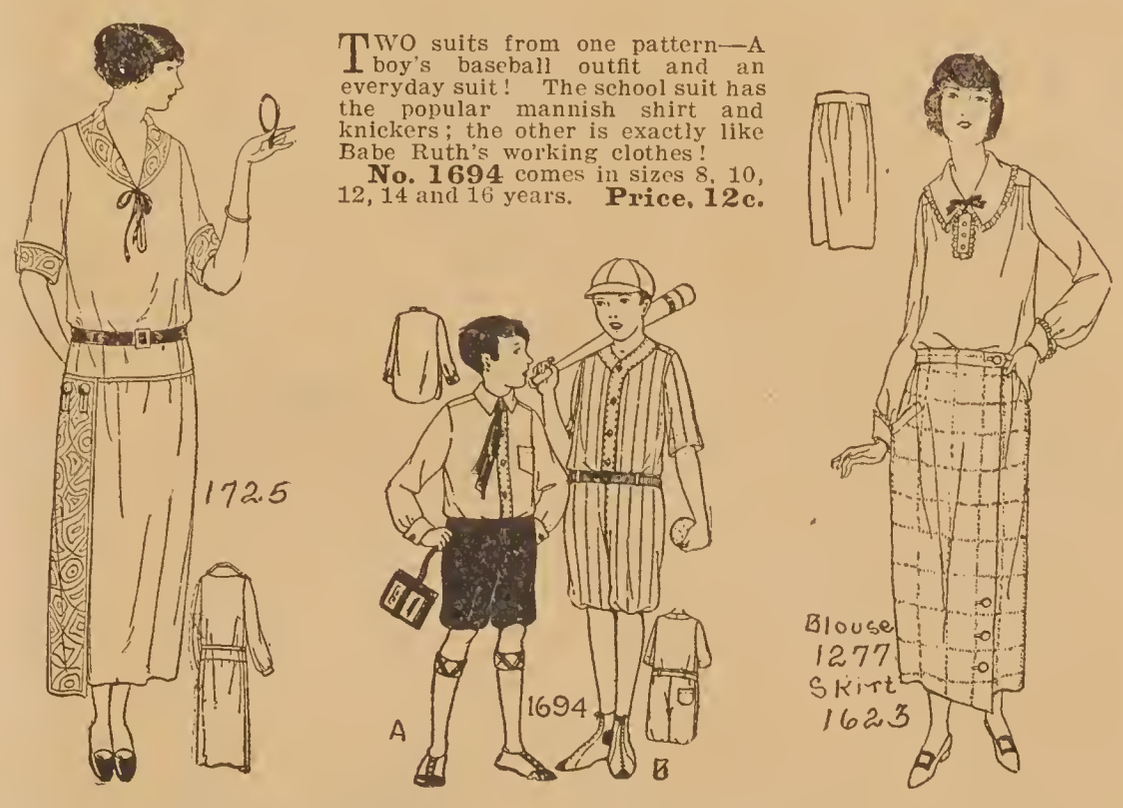
When son Henry was about 12 or 13, a calf which came on his birthday was given to him. He was told that when it got to be a cow and there was a calf, that calf would be sold and he would have the money to put in the bank or spend as he saw fit. But as long as father fed and cared for the cow, the profits went for care and feed, which settled the problem. The boy is now 17, the cow has had two calves and son counts a lot on the money from his calf every spring and is interested in stock and farms. He wants to go to Cornell when he gets through high school.

During vacation when he helps his father through haying and harvest, the boy is paid something, not as much as a man could earn, but enough so he feels he is earning something, and he has quite a little bank account.

I think that parents who take things back for gain for themselves have very little sense of justice. If boys are trustworthy, they should be encouraged, if we expect them to stay on the farm.—MRS. H. H., New York.

Spending time in planning clothes may mean spending less money in buying them.

FOR THE WOMAN WHO IS CLEVER WITH THE NEEDLE



TWO suits from one pattern—A boy's baseball outfit and an everyday suit! The school suit has the popular mannish shirt and knickers; the other is exactly like Babe Ruth's working clothes!

No. 1694 comes in sizes 8, 10, 12, 14 and 16 years. **Price, 12c.**

LONG waistlines are becoming and this dress has other smart new features. Are you anxious to have a new frock that's simple to make, that won't cost you much and looks a great deal more? Then here's the dress for you, for it requires only 2½ yards of 40-inch material with ⅞ yard 30-inch material for the trimming. **No. 1725** comes in sizes 16 years, 36, 38, and 40 inches bust measure. **Price, 12c.** stamps or coin (stamps preferred).

PATTERNS **No. 1277** and **1623** illustrate the correct waist and skirt for this summer. The waist 1277 has the round neck and ruffle trimming seen in the best shops. It comes in sizes 36, 38, 40 and 42 inches bust measure. **Pattern, 12c.** **No. 1623** shows the left side closing and uneven hemline which are popular this year. It cuts in sizes 16 years, 28, 30, 32 and 34 inches waist measure. **Pattern, 12c.**

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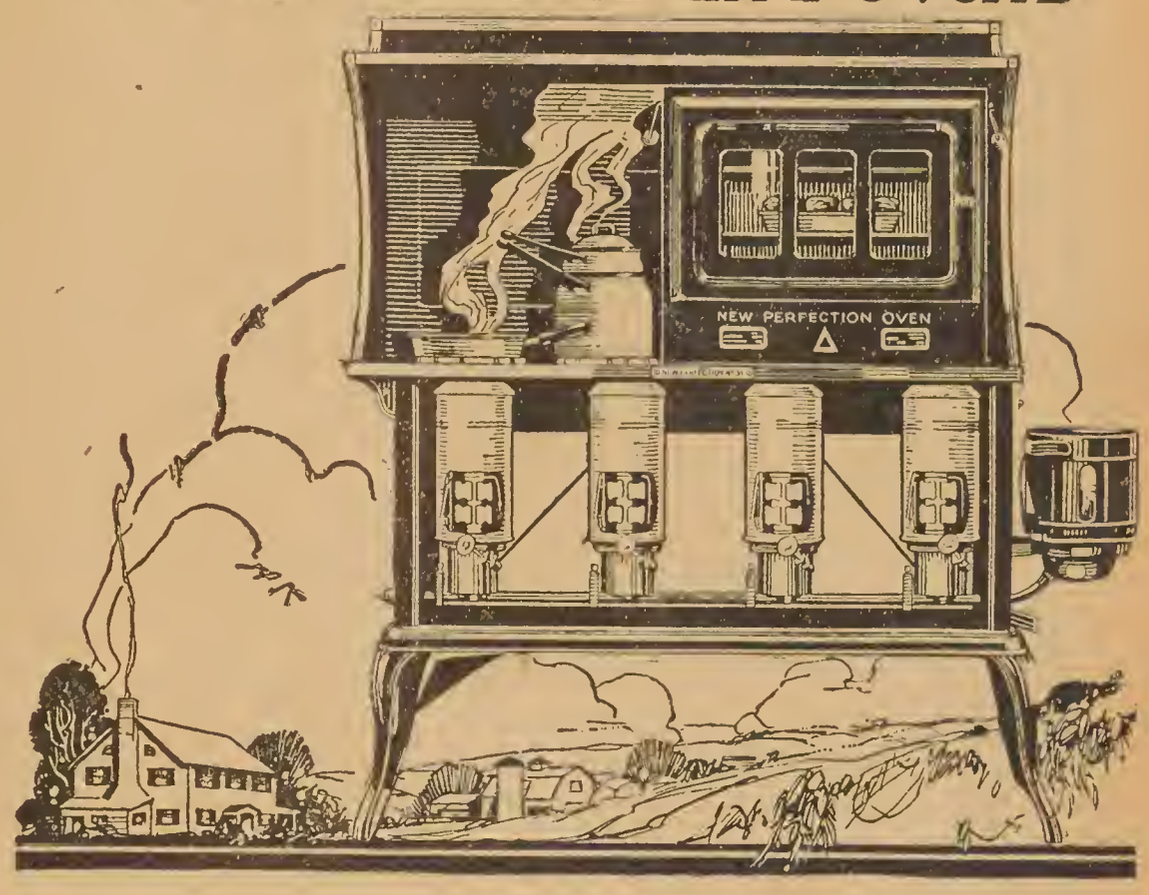

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Reviewing the Latest Eastern Markets and Prices

POTATOES CONTINUE WEAKER

HERSCHEL H. JONES

WITH heaviest supplies of the season in the New York City freight yards, prices declined last week on both old and new potatoes. Idaho Rurals have been quoted as low as $1.90 cwt. sacked, delivered in carlots. Some sprouted and spongy have sold as low as $3, full weights (180 lbs.), in the yards. States 150-lb. sacks sold from $2.50 to $3; Maines $3.50 @ 4.50 for 180 lbs., bulk; Wisconsin round whites, $1.75 @ 2.50 for 150-lb. sack.

Florida new potatoes sold on the dock for $6.50 per bbl, a decline of $2 or more per barrel from the week previous. About 50 per cent of the crop has been moved.

Some dealers in the market are of the opinion that old potatoes will clean up in good shape, counting on an improvement in the demand between the end of the Florida season and the movement of large quantities of South Carolina and Virginia potatoes. A number of carloads of potatoes were put into storage in New York last week at the time of the excess supply in the yards in expectation of a somewhat better price. At country points last week practically nothing was bought. There were very few shipments made from Maine because of the interference with transportation facilities caused by recent heavy storms. Very few potatoes were shipped from New York State due to dealers holding for relatively high prices and practically nothing was bought in Wisconsin and Michigan for the New York market.

FANCY APPLE SUPPLIES LIGHT

On fancy apples both barreled and boxed the market was quite firm last week owing to light supplies. Demand on all grades of apples was sufficient to keep the arrivals cleaned up at satisfactory prices. The prospect is for a favorable market for the rest of the season, although there will be a tendency to turn to other fresh new fruits from now on.

Fancy Baldwins, A grade, 2½-inch, sold per bbl. at $7, with some at $7.50; fancy Ben Davis reached $4.50; best and fancy Pippins, $7.50 @ $9.

BUTTER UP AGAIN

The slight falling off in receipts last week, together with general good trading, caused a stronger market and an advance in prices over the previous week. The demand for consumption is very active, and a considerable quantity of butter has been shipped from New York to other Eastern markets, which resulted in clearing up the fresh arrivals and reducing the stocks on hand in the wholesale market. Many dealers were disappointed at the lack of the expected increase in receipts. Reports from producing sections confirm the earlier information that the season was late. It is possible that supplies may run short enough within the next week or two to cause a still further advance, but the dealers in the market generally are quite conservative as to the situation.

Creamery extras, 92 score, were quoted on May 3 at 43½c, compared with 42c in the previous week, and 36½ to 37½c on the same date in 1922. State dairy butter, fine to fancy, was quoted on May 3 at 43c, compared with 34 to 36c on May 3, 1922.

The stocks of butter on hand in cold storage in the four large markets of the country on May 3 amounted to 1,176,069 lbs., compared with 1,277,703 lbs. on the same date last year. Receipts of butter in the four large markets last week were 3,000 lbs. short of the previous week, but about the same as in the same week last year. The total receipts in the four large markets since January 1 are considerably larger than in the same period in 1922.

CHEESE MARKET FIRM

Instead of declining as expected, the cheese market last week became even stronger, and State flats, fresh, average run, were quoted on May 3 at 22c per lb., compared with 21 to 21½c per lb. a week previous. State flats, held, average run, continued at 27½ to 28c per lb. The Wisconsin primary markets advanced early last week, and there is no indication of a material accumulation in Wisconsin. It is reported that the continued cold weather in the West has prevented a rapid increase in the milk flow. In the East production has increased, but there is keen competition for all good quality stock, and an unusually large part of the prospective production has already been contracted for. Receipts of cheese at New York last week were 578,871 lbs., compared with the receipts of 825,072 in the corresponding week last year.

These continued relatively high prices for cheese and butter will probably help the market for fluid milk. At this time last year fresh flats, average run, were selling at 16½ to 17½c per lb., or about 25 per cent lower than the present price.

BROILERS MORE PLENTIFUL

The broiler season is advancing with gradually increasing supplies, and prices declined last week about 5c each. Colored large broilers sold at 55c each on May 3, small, 50c; Leghorns, large, 50c; small, 40 @ 45c. Some sales of White Leghorn broilers by firms who have developed an Italian trade, are at higher prices than quoted. Many White Leghorns are shipped in too small. Demand now is chiefly for large broilers weighing around 1½ to 2 lbs. each. In another month or two the large birds will become too heavy and the demand will shift to light stock.

EGG MARKET HOLDS STEADY

During the entire month of April and the first week in May the market for eggs held at higher levels than was anticipated, and instead of quotations reaching the lowest market around May 1, as was expected, there was a slight advance last week, especially for better qualities. The supply of fancy nearby hennery eggs continued scarce, and quotations on New Jersey hennery whites, uncandled extras, advanced to 40 @ 41c per dozen. Nearby and nearby Western hennery whites, average extras, were quoted at 35 to 36c on May 3, but the vast majority of the receipts of State and other nearby eggs were more or less defective and sold at prices ranging from 10 to 30c. These average quality eggs of irregular values moved very slowly, and the market was dull for them. Some undergrades of nearby eggs sold at 28 to 29c. Demand is strong for the large-size chalk-white shell, light yolk, fancy fresh egg at top quotations.

Storage packed Western eggs of the quality of firsts and better are reported to be selling at a range from 30c up to 31½c, with an occasional car at even higher prices. The total amount of eggs put into cold storage during the month of April was over 5,000 cases less than in the same month last year in the four large markets. In March this year, the receipts at these markets were 146,080 greater than last year, in spite of less favorable weather for production in February. The question is whether the production during the month of May is going to be proportionately larger resulting in lower prices than now prevail and a surplus accumulation of storage stocks. It is possible, as shown by statistics of 1918 and 1922, for a shortage on May 1 to be changed to an excess before the point of maximum quantity in storage usually around August 1. In general, the large factors in the wholesale egg market are, it seems, surprised at the way the market has held up during the last month, and it is possible that conditions may continue quite favorable for the egg producer.

From reports received as to prices being paid for eggs in the country, it is apparent that small producers unable to ship in case lots are compelled to sell their eggs locally at very low prices as compared with the New York market.

At this time last year extra fancy, nearby hennery whites were selling wholesale at 1 to 2c lower than present quotations. Average qualities were selling then at about same prices, probably a little higher for the bulk of nearbys.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on May 4:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	40@41	......	......
Other hennery whites, extras	35@36	......	......
Extra firsts	32½@34	30@32	29½
Firsts	31@32	......	28
Gathered, whites, first to extra firsts	31@34	......	......
Lower grades	28@30	......	......
Hennery browns, extras	36@37	......	......
Gathered browns and mixed colors, extras	32@34	29@30	......
Pullets No. 1	30@31	......	......
Butter (cents per pound)			
Creamery (salted) high score	43½@44½	46@47	......
Extra (92 score)	43½	44@45	43½
State dairy (salted), finest	43	42@43	......
Good to prime	41½@42½	34@40	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$24@25	$20@21	$21@22
Timothy No. 3	21@23	......	19@20
Timothy Sample	13@16	......	......
Fancy light clover mixed	25@26	......	21@22
Alfalfa, second cutting	27@29	......	......
Oat straw No. 1	12	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	26@27	26@27	28@29
Fowls, leghorns and poor	......	23@24	......
Chickens, leghorns	......	......	26@27
Roosters	14	17@18	17@19
Live Stock (cents per pound)			
Calves, good to medium	7½@10	9 @11	......
Bulls, common to good	......	4½@ 5	......
Lambs, common to good	11 @14½	11 @12½	......
Sheep, common to good ewes	5½@ 8	5 @ 6½	......
Hogs, Yorkers	9	8¾@ 9	......

VEAL SUPPLY MODERATE

The receipts of country dressed calves at New York last week were not excessive and the demand continued fair at steady prices. The following quotations cover country dressed veal calves on May 3, per lb.: choice, 15 @ 16c.; good to prime, 12 @ 14c.; poor to fair, 9 @ 11c.; common, 5 @ 8c.; barnyards, 5 @ 7c.

Dressed lambs were in somewhat larger supply and poor to good, sold at $3 to $8 per carcass depending on quality, while choice hothouse lambs sold at $9 to $10.

GOOD HAY IN DEMAND

A quantity of new permits were issued last week for shipments of hay to the 33rd Street sheds at New York. Under the new rules these permits have a time limit of 15 days from date of issue and it is planned to issue a new batch every 15 days depending upon the tendency toward accumulation on the railroad.

Top qualities of hay are scarce and in strong demand, but there is a considerable supply of low grade hay at all terminal points in addition to receipts by boat. Much of the boat hay is trash and is offered as low as $13 per ton. As warm weather comes on there will be very little demand for any hay with a percentage of clover.

Heavy shipments of rye straw from New York State last week by river barge caused a decline to $30 per ton and a much duller market.

GRAIN PRICES DECLINE

Inactivity in buying caused a break in the grain market last week. Speculative buying of future grains became very nervous and irregular. The visible supply of wheat was reported by U. S. Department of Agriculture on April 30, as 44,521,000 bu. compared with 31,281,000 bu. same date last year.

The following were cash grain quotations on May 3:

Wheat, steady, No. 2 red domestic, $1.46; No. 2 hard winter, export, $1.35½; corn, No. 2 yellow, $1.02¼; No. 2 mixed, $1.01¾; oats, No. 2 white, 56c; No. 3 white, 54½@55c; ordinary white clipped, 55½@57.

Chicago—Wheat, No. 2 red, $1.30; No. 2 hard winter, $1.22; corn, No. 2 white, 83c; No. 2 yellow, 83½@84c; oats, No. 2 white, 46@47¼c; No. 3 white, 46c; rye, 82½c; barley, 63@70c.

DULL TRADING IN FEEDS

The demand for wheat feeds became less active last week, and the feed market generally was duller, although prices remained steady. Buffalo quotations on carlots Buffalo rate basis, in 100-lb. sacks, per ton, May 3, were as follows:

Gluten feed, $39.55; cottonseed meal, $46.50; oil meal, $42; dried brewers grains, $35; standard spring bran, $35.25; hard winter bran, $35.75; standard spring middlings, $34.75; choice flour middlings, $37; white hominy, $35.80. No. 2 Yellow corn per bushel, 94c; No. 3, 93c; No. 2 white oats, per bushel, 53c; No. 3, 51½c; barley feed, 74@78c.

WOOL PRICES FIRM

The wool market is still firm and prices steady. The latest quotations available on the Boston market covering Michigan and New York unwashed fleeces are as follows: Delaine, 55c per lb.; Fine, 48 @ 50c; ½ blood, 53 @ 54c; ⅜ blood, 54 @ 55c; ¼ blood, 52c. Pennsylvania fleeces sold around May 1, in the Boston market at: Delaine, unwashed, 56 @ 58c; fine unwashed, 50 @ 51c; ⅜ blood, combing, 55 @56c; ½ blood, combing, 57 @ 58c.

MAPLE SYRUP UNSETTLED

Although a great deal of maple syrup and sugar of a wide range of quality is being offered to large New York buyers, it can hardly be said that there is any settled market yet. The lack of knowledge of quality on the part of both consumers and buyers throws the poorest sugar and syrup into almost direct competition with the best. In the last week a considerable quantity of Canadian and Vermont sugar of extremely poor quality, almost black in color, has been offered large buyers in New York at very low prices. Some manufacturers of blended syrup prefer this cheap sugar because of its strong flavor, but it is not to be compared with sugar made from pure, clean, filtered syrup. Really fancy quality pure maple in gallon cans is selling wholesale at $2 to $2.35 per gallon in gallon cans, and pure syrup of average quality shipped on consignment is selling at $1.90 to $2 per gallon.

Maple sugar is still quoted at 25 to 30c in lb. cakes, but irregular quality tub sugar is offered at much lower prices.

No firm prices seem yet to be established on Vermont sugar. The production in Vermont this year is estimated at somewhere near third-thirds of normal.

HONEY SEASON LATE

The U. S. Department of Agriculture reports that the honey season in the Northeastern States is two weeks later than normal. Heavy winter and spring losses are reported, usually 15 to 25%, some as high as 40% and a few good beekeepers report losses under 5%. Clover looks fine but lack of rain is retarding growth in some sections. Bees are working on maple and early flowers. Supplies of honey in the country are nearly exhausted. A few sales are reported of white extracted in single 60-lb. cans at 11 @ 12c, in ton lots, 9 @ 11c per lb., single 5-lb pails selling at 19 to 20c, in wholesale lots, 13 @14c per lb.

Dairy improvement association records shows that the feed cost of 100 pounds of milk varies 40 cents to $1.30, depending largely on the production of the cow.

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BABY CHICKS	
S. C. Rhode Island Reds,	15 cts.
Barred Rocks, ...	14 c's.
S. C. W. Leghorns, . . .	12 cts.
Mixed or Off Color Chicks,	9 cts.

These chicks are all hatched from free range stock. Safe delivery and satisfaction guaranteed. Descriptive booklet free. Chicks at the above prices to be delivered May and June. W. A. LAUVER, McALISTERVILLE, PA.

1923 Chicks

Wh., Br., and Buff Leghorns, 100, $13; 500, $60; Barred Rocks, Anconas, Reds, 100, $15; 500, $70. Buff Orpingtons, Wh. Rocks, Minorcas, Wh. Wyandottes, 100, $16; 500 $75. Assorted, mixed, 50, $6; 100, $11; 500, $50. From heavy laying flocks. Postpaid to you. 100% live delivery guaranteed. Reference Bank of Berne. Free Circular.

Globe Hatchery, Box 57 Berne, Ind.

LOOK! Baby Chicks $10 a 100

White and Brown Leghorns, **12c**; Barred and White Rocks, Rose and Single Comb Reds, Anconas, **14c**; White Wyandottes and Buff Orpingtons, **16c.** Postage paid and safe delivery, *Order direct. Catalogue Free.*

JAS. W. HOUCK & CO., Box 47, TIFFIN, OHIO

QUALITY BABY CHICKS

Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

C. M. LORGENECKER, Box 40, Elizabethtown, Pa.

PROFITABLE, VIGOROUS CHICKS

IMMEDIATE DELIVERY. PREPAID LIVE ARRIVAL

Bar. Rock, $16 per 100; $150 per 1,000. R. I. Red, $17 per 100; $165 per 1,000. Brown Leghorn, $15 per 100. After May 10th, Barron S. C. White Leghorn, $14 per 100; $130 per 1,000.

HUMMER'S POULTRY FARM, Frenchtown, N. J. R. No. 1

Free Catalog

Land and Water Fowl, Chickens, Ducks, Geese, Turkeys, Guineas, Rabbits, Pigeons, Dogs, Stock and Eggs.

HOME STOCK FARM, SELLERSVILLE, PA.

BARRON WHITE LEGHORNS, 303-EGG STRAIN.

Chicks, Eggs, 8-weeks-old Pullets. Circular.

MAPLE ACRES FARM, Box A, TIFFIN, OHIO

EGGS

from thorough-bred light Brahma Columbian and White Wyandotte, Silver Campine, 10c. each; Rocks, Reds, $1 per 15; Leghorns, $1 per 15. S. G. BEALER, Coopersburg, Pa.

SWINE BREEDERS

PIGS

Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.50 each; 8 to 9 weeks old, $7.50 each.

Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.

K. H. SPOONER, WALTHAM, MASS.

LARGE YORKSHIRE BOARS

FOR SALE

Well-grown for their age and vigorous. Ready for immediate service. Priced at farmers' prices.

HEART'S DELIGHT FARM, Chazy, N. Y.

100 PIGS 100 FOR SALE

Yorkshire and Chester White Crossed and Chester and Berkshire Crossed; all large growthy pigs bred from the best of stock that money can buy. Pigs, 6 to 7 weeks old, $6 each; 8 to 9 weeks old, $6.50 each; on approval C. O. D. any part of the above lot.

WALTER LUX, 388 Salem St., Woburn, Mass.

CHESTER WHITES and O. I. C. Big Type Grand Champion bloodlines. Pigs, $10 each, prepaid. GEO. F. GRIFFIE, Newville, Pa.

LARGE BERKSHIRES AT HIGHWOOD
Grand champion breeding. Largest herd in America. Free booklet.
HARPENDING Box 10 DUNDEE, N.Y.

Registered Spotted Poland Chinas The coming hog. Write for prices. Spring pigs shipped C.O.D., guaranteed. Brookside Farm, Middletown, Virginia

REGISTERED O. I. C. AND CHESTER WHITE PIGS. E. P. ROGERS, WAYVILLE N. Y.

MOSS'S CHICKS

BEST IN THE WORLD

This season has proven to be the biggest season in our history. An outstanding factor is the great number of reorders from customers of past years, which speaks most convincingly of our High Quality and Superior Service.

You will receive the Healthiest, most robust chicks produced, for that is the kind we are famous for throughout the country. If you want fall layers order now, we are still in a position to ship immediately.

PURE BRED BABY CHICKS

Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
Leghorns - Buff and Brown, Barred Rocks	$4.50	$8.50	$17.00
S. C. & R. C. R. I. Reds	$4.75	$9.00	$18.00
White Wyandottes, White Rocks, Buff Rocks, Anconas	$5.00	$10.00	$19.00
Black Minorcas, Buff Orpingtons, White Orpingtons	$5.50	$10.50	$21 00
Mixed Chicks or Broilers	$3.75	$6.75	$13.00
Light Brahmas	$8.75	$16.50	$30.00
Famous MOSS'S Jersey Black Giants	$11.00	$21.00	$40.00

June, July and August chicks 1 cent lower. By 500 or 1,000 of one variety, special discount allowed.

Hatching Eggs and Stock.—Whether your order is large or small, it will have the same careful attention. *Catalogue on request.* Immediate Delivery

ANTHONY H. MOSS, Morris Plains, New Jersey

30,000 Chicks weekly

Hatches due June 5, 12, 19 and 26

June, July and Aug.

Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:

S. C. White and Brown Leghorns.....10c each
Barred Rocks.....12c each
S. C. R. I. Reds and S. C. Black Minoreas.14c each
R. C. White Wyandottes.....14c each
Broiler Chicks (Heavy Breeds).....9c each
Broiler Chicks (Light Breeds).....8c each

Lots of 500.....½ cent per chick less
Lots of 1000..... 1 cent per chick less

100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.

FINE CATALOG FREE

THE KEYSTONE HATCHERY - Richfield, Pa.
Members I. B. C. Association

BABY CHICKS

Price List	Prepaid to you	Pure bred Stock	
	100	50	25
White and Brown Leghorns	$12.00	$6.50	$3.50
Buff and Black Leghorns	12.00	6.50	3.50
Anconas	13.00	7.00	3.75
Rhode Island Reds	14 50	7.75	4 00
Barred Rocks	14.50	7.75	4 00
Single Comb Black Minorcas	14.50	7.75	4.00
Buff and White Rocks	15.00	8.00	4 25
White and Silver Laced Wyandottes	16 00	8.50	4.50
Buff Orpingtons	16 00	8.50	4.50
Black Langshans	17.00	9.00	4 75
Light Brahmas	20.00	10.50	5.50

All absolutely first class, pure bred stock. Prompt shipments made. Mail orders to

J. KREJCI, 2165 East 86th Street, Cleveland, Ohio

750,000 CHICKS

$9.00 PER 100 AND UP. From Hogan-tested, well-kept, heavy-laying flocks. WH., BR., AND BUFF LEGHORNS, ANCONAS, 100, $11; 300, $32; 500, $52. BARRED ROCKS, REDS AND MINORCAS, 100, $13; 300, $38 500, $62 BUFF ORPINGTONS, WHITE ROCKS AND WHITE WYAN., 100, $15 straight. Mixed Chicks, 100, 59 straight. Postpaid, full live delivery guaranteed. Order right from this ad. Free Catalog. Reference, 4 Banks.

TRI-STATE HATCHERIES, Box 510, ARCHBOLD, OHIO

BABY CHICKS

Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 14c each; White Wyandottes, 16c. each; White, Brown, Buff Leghorns, 12c. each; broilers, 8c. each Pekin Ducklings, 30c each. Safe delivery guaranteed by prepaid parcel post

NUNDA POULTRY FARM NUNDA, N. Y.

CHICKS THAT MAKE PROFITS

Strong, vigorous, well-hatched Chicks from heavy laying flocks of S. C. White, Brown and Buff Leghorns, Rhode Island Reds, White Wyandottes, White Rocks, Barred Rocks, Buff Orpingtons and Anconas. 100% live delivery guaranteed. Postpaid. Catalog giving particulars, also price list on request. Bank Ref.

BLUFFTON HATCHERY, Box T, Bluffton, O.

CHICKS

PEDIGREED, EXHIBITION & SELECT GRADES from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.

NABOB HATCHERIES, Box A5 Gambier, Ohio

CHICKS CUT PRICES

That are better, stronger, with plenty of "pep"; chicks easier to raise. That's the kind you have been looking for; that's the kind our system produces. It will pay you to learn how it is done. Write today for free new Bulletin C. ELOEN E. COOLEY, FRENCHTOWN, N. J.

TIFFANY'S SUPERIOR CHICKS THAT LIVE

Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

Hampton's Black Leghorn Chicks

Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.

A. E. HAMPTON, Box A Pittstown, N. J.

TOM BARRON S. C. W. LEGHORN

THE WORLD'S BEST LAYERS. BABY CHICKS.
DAVID M. HAMMOND, CORTLAND, N. Y.

LARGE STOCK fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Collies, Pigeons, Chicks, Stock, Eggs, low. catalog. PIONEER FARMS, Telford, Pennsylvania.

HILLPOT QUALITY CHICKS

Order now—at these low prices

Reductions immediately effective. Prompt deliveries—with safe arrival of full count guaranteed postpaid anywhere in U. S. A. east of Mississippi River. Add 10c on each hundred or less for special delivery.

	25	50	100	500	1000
White, Black or Brown Leghorns	$4.00	$7.50	$15.00	$72.50	$140.00
Barred Rocks	4.75	9.00	17.00	82.50	160.00
Rhode Island Reds	5.00	9.50	18 00	87.50	170.00
White Rocks or Anconas	5.25	10.00	19.00	92.50	180.00
Wh. Wyandottes or Blk. Minorcas	6.75	12.75	25.00	122.00	- - -
Mixed Chicks	3.50	6.50	12.00	57.50	- - -
SPECIAL MATING					
Mating A White Leghorns	6.75	12.75	25.00	- - -	- - -
Mating B White Leghorns	5.50	10.50	20.00	95.00	185.00
Barred Rocks	6.00	11.00	22.00	105.00	190.00

Big hatches every week during the season. Send money order, check or registered letter. Cannot shipped C. O. D.

W. F. HILLPOT, Box 29, FRENCHTOWN, N. J.
Member International Baby Chick Association Life Member American Poultry Association

JERSEY BLACK GIANTS

Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

PICTURESQUE POULTRY FARM, Box 71, Trenton Junction, New Jersey

BUY HUBER'S RELIABLE CHICKS

Our 14th Year 1,000,000 For 1923

By Parcel Post Prepaid—**100% Live Delivery.** Give us your order for some of our **Reliable Chicks** and we will prove that we give you better chicks for the money than you can get elsewhere. **Combination Offers and Specials offered.** Order early. Write for prices and Free Illustrated Catalog.

HUBER'S RELIABLE HATCHERY North High St., FOSTORIA, OHIO

CHICKS—$11.60 per 100 and UP

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

Varieties	Prices on	50	100	200	500
White, Brown & Buff Leghorns, Anconas		$6.50	$12 00	$35 00	$58.00
Barred Rocks, R. & S. C. Reds		$7.50	$14.00	$41.00	$68 00
Buff & White Wyandottes, & Buff Rocks		$8.00	$15 00	$44.00	$72 00

Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW DIRECT FROM THIS AD and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free. Write for reduced prices for June.

KIRKERSVILLE HATCHERY Box D KIRKERSVILLE, OHIO

$11 Per Hundred and Up

CHICKS From Selected, Pure Bred, Hogan tested flocks on free range. First Hatch off February 19th. 175,000 Chicks for season of 1923. 100% Live Delivery guaranteed. Postpaid.

VARIETIES.....Prices on.....	50	100	300	500
White & Silver Wyan., White Orpingtons & Black Minorcas	$9.50	$18	$52	$85
White & Buff Rocks	8.50	16	46	75
Barred Rocks, R. & S. C. Reds, Anconas, & Black Leghorns	8.00	15	41	72
White and Brown Leghorns	7.00	13	28	62
Mixed, all varieties, odd lots		11	33	55

1000 orders at same rate as 500. Get our 1923 Catalog. Reference, Athens National Bank.

ATHENS CHICK HATCHERY. BOX Y, ATHENS, OHIO

BABY CHICKS

From 200-Egg Hens

Chicks from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $15 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

Glen Rock Nursery & Stock Farm
Ridgewood, N. J.

BABY CHICKS—Our 19th Season

Hatched from standard, pure bred, free range stock by long experienced operators. Twelve leading varieties, $10 per 100, up. Shipped Postpaid. Safe delivery guaranteed. Illustrated catalog free.

20th CENTURY HATCHERY
Box R New Washington, Ohio

CHICKS WITH PEP, $11 Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off.

Free catalog. Member I. B. C. A.

HOLGATE HATCHERY, Box A, Holgate, Ohio

BABY CHICKS

S. C. W. LEGHORNS

S. C. Barred Rocks, and Rhode Island Reds. Big husky chicks from the very best of free range stock. Circular and price list free. Fourteen years hatching experience. Full count and safe delivery guaranteed.

BROOKSIDE POULTRY FARM
Box A SERGEANTSVILLE, N. J.

Prices of BABY CHICKS for May Delivery

White, Brown and Buff Leghorns, each	12c.
Barred and White Rocks, R. I. Reds, each	14c.
Black Minorcas and Anconas, each	13c.
White Wyandottes and Buff Orpingtons, each	16c.
Assorted Varieties, each	10c.

Sent prepaid parcel post. 90 per cent. live delivery guaranteed. Order direct from this ad or send for price list.

THE LANTZ HATCHERY, TIFFIN, OHIO
Established 1906

DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.

WAYNE DUCK FARM & HATCHERY, Clyde, N. Y.

BABY CHICKS

We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write today for prices. Prompt deliveries.

E. P. GRAY, Box 90, Savona, N. Y.

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens. WHITE, BROWN, & BUFF LEGHORNS, 50, $7; 100, $13; 500, $62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, $8; 100, $15; 500, $72.50. WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, $9.50; 100, $18; 500 $87.50. POSTPAID. Live arrival guaranteed. Bank reference. Order direct from this ad Free circular.

MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

BABY CHICKS

Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

QUALITY HATCHERY, Box B, Zeeland, Mich.

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

TRY US AND BE SATISFIED

RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

BABY CHICKS

of heavy laying quality at the right price. Barred, White and Buff Rocks; Brown, White and Buff Leghorns; R. C. and S. C. Reds; White Wyandottes, Buff Orpingtons and Anconas. We hatch our own Chicks. Circular free. For a square deal, write to the

OHIO HATCHERY, Decatur, Ohio

White Leghorn Baby Chicks and EGGS from high record breeders on range; proven winter egg producers. Our chicks live and do so at a profit. YARMOND POULTRY FARM, Vanderburg, N. J.

The Modern Woman *Writes* the Modern Way

MOTHER is just as up-to-date as the rest of her family! When it comes to sending to the city for things her family needs she *types* her order quickly and clearly on the Underwood Portable, and her goods come through with never a mistake. She's sure of this, because she checks the goods against the carbon copy of her order.

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The Portable is obtainable at Underwood offices in all principal cities, or direct by mail.

Cased:
Weight 9⅞ lbs.
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☐ Send booklet "Giving Wings To Words", fully describing the Underwood Standard Portable.

Name_____ Address_____

A A

AMERICAN AGRICULTURIST

Founded 1842

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How Shall We Control TB?—By H. E. Babcock

Before You Invest, Investigate!

American Agriculturist Radio Talk on "How Scoundrels Get Rich"

By H. J. KENNER

HAVE you $100 or $500 on which you would like to realize handsome returns? If so, you are one of millions of people whose savings even on a $10 down and $10 a month plan, are snared by men who spend their lives devising law-proof traps for uninformed investors. The American Agriculturist believes it desirable that you should know about some of these schemes and through the courtesy of WEAF this practical message designed to help you guard against the wily promotor or fly-by-night vendor of securities is given gladly.

Whether or not this knowledge will protect you is for you alone to decide. However, authorities have estimated that investing is more or less of a closed book to most people. Mr. David F. Houston, Former Secretary of the United States Treasuury and now President of the Bell Telephone Securities Company, said recently that possibly not one person in a hundred is well informed concerning principles of safe investment.

Some of these principles can be stated here—the primary one is "Before you Invest, Investigate." But at this particular moment it may be interesting to show the other side of the picture by mentioning a few of the 57 varieties of methods by which tricksters get the savings of trusting investors.

Of course, the underlying lure —with emphasis on "lying"— used in the glowing literature and sales talks of irresponsible sellers of securities is the hope of large profits. One professional promoter admitted recently that the only way he could sell stock was to work on the principle that "hope springs eternal in the human breast." A real estate developer who has been selling boggy farm land at Muscle Shoals, Alabama, to wage-earners in New York at city lot prices, said that no one could ever sell anything in the slow-going, educational way and that he told his salesmen to "point" out the future, feature the prospective profits and close quick. Henry Ford's name and picture were used in this selling campaign, because of the automobile manufacturer's offer to take over from the United States Government the nitrate plant and power dam on the Tennessee River which was projected during the war.

In literature which may have reached you by mail you have perhaps noticed that various promoters of new and as yet unsuccessful companies feature the great proportions to which $100 or $500 invested in other companies has grown. These comparative figures, of course, refer to long-established, successful concerns which developed from small beginnings by careful management over a long period of years. The figures cited have no bearing whatever on the prospect of the stocks offered you. They are featured to arouse your hopes, stir your imagination and to divert your attention from the truth about the company whose stock you are importuned to buy.

The "Blind Pool"

From time to time, "blind pools" which take the gullible investor's money, have flourished in several cities. This swindle is very much akin to the notorious Ponzi affair. A "blind pool" is also known as a "participating syndicate" or "discretionary pool." Clients are assured of from 20 per cent to 120 per cent in yearly dividends, payable monthly, after agreeing to pay the firm 30 per cent of the profits. They assign to the firm full right to trade with the clients' money as it sees fit on the stock market. These pool operators always claim to have inside knowledge with which to "work" the stock market and to have close connections with the so-called Wizards of Wall Street. But as a matter of fact, dividends to clients are always paid out of the golden flow of money into the office and when fresh clients fail to appear the blind pool proprietors disappear.

Nearly every new method of serving investors is imitated by unscrupulous men and firms to get-rich-quick at the expense of uninformed investors. One such scheme used "subscription rights" to fool the unwary. A circular letter was sent to stockholders in well-known successful companies with a beautifully colored certificate attached purporting to give the recipient the "right" to buy stock in the new concern which, by the way, used a corporate name looking like and sounding like that of a large and established corporation in the same field. This created confusion in the mind of the reader: and by the ruse, payments were received from hundreds of investors who thought the "right" valuable, which in fact, were worthless.

How "Reloading" Works

By another method termed "reloading," money is taken from stockholders in companies which have not paid dividends and which, though the stockholder does not know it, are badly in need of funds. This method is sometimes legitimate, but swindling organizations have made a specialty of selling new allotments to old stockholders by elaborately building up the impression that the company is approaching prosperity, that a "melon" is about to be cut, and that as a special favor to those who had faith in the company by investing as an early investor in its shares, they are permitted to share in the large profits to come. In some of these instances shares were "reloaded" on victims at five or ten times the price the swindlers paid for the stock and at prices often twenty-five to fifty times actual worth.

In the oil and mining promotions, one of the favorite devices of the dupester is the "special trustee" scheme. The faker sends a letter to stockholders of a legitimate company on what appears to be the company's letterhead and signs it, "Special Trustee For Stockholders." The letter intimates that the company is about to go on the rocks and urges the stockholder to turn in his shares for "something much better" with a bigger chance to win. When the frightened stockholder does this, he gets stock of much more doubtful value for which he sometimes has to pay 25 per cent additional. And then the "alleged special trustee" unloads the stock he received at whatever it will bring in the open market, usually he pockets the proceeds.

A scheme called "insured investing" is now in vogue. This plan calls for setting aside a third of the stockholder's money with a trust company as a fund which accumulates and returns the amount originally invested at the end of seventeen or twenty years, if the promotion goes wrong. This creates a sense of false security in the mind of the prospect who is not at all insured against loss by this system, but in effect sets aside a portion of his own money to be returned with interest after twenty years. The rest of his so-called investment is divided between the promoter and the infant company's treasury.

Such practices as these by pirates of promotion and freebooters of finance, besides exploiting unsuspecting people, cast a slur on legitimate investment, brokerage and banking business everywhere. Fair-dealing financiers outnumber vastly illegitimate sellers of securities, but it is the latter who are active in schemes to separate savings painlessly from the man or woman on the farm, in the office, store or factory.

Realizing the great harm done due to losses brought about by these nefarious operations, the business men of New York have determined to set their hands strongly against practices which create false impressions about financial New York and which betray the confidence which investors have a right to place in New York business. To carry on a permanent and militant campaign against swindlers and serve as a Clearing House for information helpful to investors, New York business men have organized the Better Business Bureau. The Bureau's functions are:

1. Developing facts about doubtful securities and vendors in order to correct abuses and to provide facts for investors before they invest.
2. Reducing unfair competition in the Investment Field.
3. Building confidence in legitimate business by protective action in the public interest, and by helping to spread a better understanding of the principles of sound investment.
4. Aiding the authorities in the enforcement of fraud laws designed to curb stock-swindling.

An Association of Service

In its service to the public the Bureau cooperates with organizations of similar name in 38 other principal cities and with the National Vigilance Committee of the Associated Advertising Clubs of the World. It is ready to cooperate with township and county farm organizations and with agricultural associations in New York and other Eastern States.

The Bureau has nothing whatever to sell. Its action is always disinterested and is taken in the public interest. It is supported by voluntary subscriptions made by financial and commercial firms of New York and is aided by the press in its distribution of protective facts of interest to the public.

By writing to the American Agriculturist or by consulting your banker or writing direct to the Better Business Bureau, 280

(*Continued on page* 440)

"Stop, Look and Listen!"

WE never get over the feeling of amazement about the thousands of farmers, and other people, too, for that matter, who are taken in by the glib statements of scoundrels who make glittering promises about their get-rich-quick schemes. In spite of the very hard times on the farm we doubt if there is a single farm community where there is not at least one, and more often several, who have invested some of their small savings on promises of schemes that never work out. People do not tell of these investments to their neighbors, but we are constantly saddened by the large number of letters which we receive about them. Because of this, we are doing all we can to get people to "stop, look and listen" before they take steps that usually mean the loss of hard-earned savings.

On this page is the speech of Mr. H. J. Kenner, Managing Secretary of the Better Business Bureau, which is an organization of business men to prevent people from losing their savings in unsafe schemes. This speech was broadcast on American Agriculturist radio program from the WEAF station at 6:30 P. M. Wednesday evening, May 16. A careful reading of it may save you a good deal of sorrow.— The Editors.

American Agriculturist

THE FARM PAPER THAT PRINTS FARM NEWS

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 For the Week Ending May 19, 1923 Number 20

How Shall We Control TB?

New York State Farm Bureau Committee Arrives at Some Conclusions

By H. E. BABCOCK

THE following questions were put by the New York State Farm Bureau Federation Committees on Tuberculosis Eradication to a representative gathering of County Tuberculosis Committees at a conference held in Ithaca, on on May 1:

1. Should Bovine tuberculosis in New York State be eradicated? Why?
2. Should the State continue to subsidize eradication?
   A. By Indemnities?
   B. By free testing, by state veterinarian, or county veterinarians?
3. Are indemnities too high?
4. Are appraisals too liberal?
5. Is the follow-up on tested herds thorough enough?
6. Is the State ready for a universal plan of area testing in contrast to testing selected herds? Or should this be optional?
7. What is the best plan of county cooperation?
   A. The Madison County plan?
   B. The Tompkins County plan?
   C. The Cortland County plan?
8. How may this Committee best serve the cattle interests of New York State?

The answers, along with the advice given by State and Federal officials in charge of bovine tuberculosis eradication, will help the Committee to arrive at its final conclusions which it expects to submit to the State Farm Bureau Federation sometime in the near future.

What a Satisfaction It Is to Know They Are All Free of Tuberculosis

For the benefit of those who have not followed the work of this Committee, I might say it was appointed by President Enos Lee of the New York State Farm Bureau Federation following the annual meeting of that organization in Syracuse, when a number of resolutions were introduced asking the Federation to go on record in favor of appropriations for tuberculosis eradication work.

The Committee is composed of men who should be competent to pass judgment on the problems concerning bovine tuberculosis eradication in a comprehensive and fair manner.

Personnel of the Committee

L. A. Toan of Perry, N. Y. represents the New York State Guernsey Club. Mr. Toan is president of the club and is himself oner of a fine herd of accredited Guernseys. E. R. Zimmer represented the New York State Holstein-Friesian Association. His death has been a great loss to the Committee. His place will now be filled by M. C. Bond, his successor as Secretary of the Association. Mr. Bond has had considerable practical experience with the control of tuberculosis eradication at the Morrisville School of Agriculture and is in a position to rapidly establish contact with the Holstein breeders of the State.

M. E. Buckley of the Lincoln School of Agriculture in Westchester County, N. Y. has probably had more experience in handling reacting cattle and developing healthy herds from them than any other man in the United States. Mr. Buckley knows cows and is a student of tuberculosis.

Jay Coryell, State Director of Farm Bureaus, as Secretary of the Committee, has intimate contact with the various county farm bureau associations and the county agents who are interested in the work. The writer, as Chairman, will hope to contribute something from his practical experience and from his observations of the work generally throughout the State.

What the Committee Has Done

At its first meeting the Committee did something, which few men who talk about bovine tuberculosis, have done. For nearly a solid day it waded through the various official documents, acts of Legislature and Congress, and rules and regulations covering the work.

At its next meeting it had present and spent the day in conference with Dr. Kiernan, Federal Veterinarian in charge of tuberculosis eradication throughout the United States, Dr. Leonard, the Federal Agent assigned to New York State, Commissioner Pyrke, of the New York State Department of Farms and Markets, and Director McLaury of the Bureau of Animal Industry. At this conference the Committee sought to draw out from the State and Federal officials their observations and their plans for the State.

The third meeting of the Committee was held in Ithaca, on May 1, the one with which this article deals, and is the one which Committee members feel has meant the most to them. The meeting was held in Ithaca because accessible to that city are a number of counties in which tuberculosis eradication is being pushed in an organized manner. It was thought it would be possible to get representatives from these counties into Ithaca for a meeting. This proved to be the case. There were present representatives from Onondaga, Cortland, Tompkins, Steuben, Chenango, Broome, Tioga and Madison counties. In all about thirty-five men met with the Committee.

The questions set forth in the beginning of this article were decided upon by the Committee in advance of the meeting and were presented to the conference in order that something definite might be arrived at and particularly in order that the Committee might get light on the questions which its investigations had convinced the members were fundamental.

On the question of eradication of bovine tuberculosis, the first one put to the conference, there was no disagreement. If the men present with the Committee fairly represent the progressive cattle owners of the State, there is no question about how they feel concerning the disease.

The reasons given were; first, the protection of the public health, particularly that of rural people, those living on the farms and in small villages who are not protected by pasteurization; and second, the preservation of the cattle industry, both as an agricultural asset of fundamental importance and as a safeguard for the future milk supply.

As might have been expected, those present, being breeders or the representatives of breeders, were unanimously in favor of the continuation of indemnities. It was the unanimous opinion that if tuberculosis eradication is to succeed, the State must bear part of the loss as its contribution to he safeguarding of public health.

Indemnity Limits Not Too High

In the discussion of the question of the size of indemnities it seemed to be the unanimous opinion of those present that the indemnity limits as now set by law are not too high and that under them it is the owner of really high grade cattle who suffers, it not

(*Continued on page* 439)

Editorial Page of the American Agriculturist

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Support the Mullan-Gage Law

NO citizen of New York State or member of its Legislature can take any pride in the accomplishments, or lack of them, in the session just passed. It would have been much better and cheaper had it never met. Not in years has there been more political horse-play and less real achievement. Then to cap the climax, and to add insult to injury to the law-abiding citizens of the State, the Legislature at the last moment passed the bill repealing the Mullan-Gage Law. The responsibility is now on Governor Smith of determining whether or not New York State believes in cooperating with the national government in enforcing prohibition which is the law of the land.

Nearly all of the States have passed legislation supporting the Volstead Act, prohibiting the manufacture and sale of intoxicating liquors and providing cooperation between the State law enforcing machinery and the Federal authorities. The Mullan-Gage Law provided for such cooperation in New York State. About the only argument against the Mullan-Gage Law is the claim that its attempted enforcement by State and city officials and police led to much bribery and graft between the bootleggers and the law enforcement officers. Such an argument is absurd on its face because it is a confession that all State and city enforcement officers are dishonest and can be bribed.

The Eighteenth Amendment is a Federal law and a part of the United States Constitution, which Governor Smith and other public officials agreed to support when they took their oath of office. If the Governor does not veto this repeal bill, hundreds of bootleggers already indicted under the State law will be released. New York will by this repeal give open support and comfort to the criminal bootleggers, and we will have one of the worst situations from a law enforcing standpoint that has ever existed in America. In the words of the Utica "Observer," published at Utica, New York: "It throws the State open to a revel in lawlessness that has never been before approached. It will fill the State with criminals who will flock here to open illicit traffic and make possible the opening of dives upon every corner."

The New York "World," which openly fought the Eighteenth Amendment both before and after it was passed, makes the following remark since the passage of the bill repealing the Mullan-Gage Law: "Congress imposed the Volstead Law upon the people of New York. Now let Congress provide for the enforcement of the Volstead Law." If South Carolina ever made any stronger statement than this for State rights and nullification before the Civil War, we never read it.

The Governor is to hold a hearing on the bill repealing the Mullan-Gage Law sometime during the week beginning May 20. If you agree with us that the repeal of this Law would be a sad disgrace to the people of New York State, we suggest that you write, or better still, telegraph the Governor immediately asking him to veto the repeal.

Home, Sweet Home

"HOME, SWEET HOME" celebrates its one hundredth anniversary this month. It was written by John Howard Payne, on the eighth of May, 1823. A New York newspaper in commenting on the song's anniversary said that no doubt a city audience hearing it in a theatre now for the first time would call it very mediocre. Maybe so, but if "Home, Sweet Home" is not a great ballad, then our sense of all that is beautiful in music and fine in sentiment is mediocre, too. This song, standing as a symbol of the home associations which are the best in all human relationships, has lived one hundred years in the hearts of hundreds of millions and it will continue to live when the high-toned operas or the wild jazzes which seem to please people so much now are long gone and forgotten.

"Home, Sweet Home" is particularly an American song because the American has been a pioneer and a wanderer; few of them have stayed in one spot for more than one generation, and this song more than any other has expressed the wanderer's bitter feelings of lonesomeness and homesickness. "Home, Sweet Home" has been sung by thousands of farm women, soul-starved for music and for associations with friends and relatives, of which the isolated business of farming had deprived them. "Home, Sweet Home" is the song of the farm boy hired out to a Yankee farmer, or lured by adventure to the great city only to find after all that "be it ever so humble there is no place like home." "Home, Sweet Home" is the song of the pioneer in his covered wagon with all of his friends and old associations left behind, and an unknown land and future ahead, and "Home, Sweet Home" is the song also of the boy soldier, separated from his family for the first time and almost dying with the nostalgia of homesickness.

There is a story of two great armies during the Civil War lying one summer evening on opposite sides of a Virginia river. As we remember the story, the fighting had ceased for the day and the men were resting. After a while, a Southern band began to play "Maryland, My Maryland," and as the band played, a few of the Confederate boys began to sing. Then regiment after regiment took up the song until the whole army had joined in.

Not to be outdone, a Union band began to play "Marching Through Georgia," and the soldiers joined in until the whole Union army was singing. When the Confederates had finished their song, they immediately started another one, "Dixie," and they were answered on the other side by "The Girl I Left Behind Me." Then the Southerners took up one by one some of the beautiful old plantation ballads, and each time they were answered by the Union boys by the love and folk songs of the North.

Finally, after a lull, from the Southern encampment softly across the waters of the river came the beautiful and sad old strains of "Home, Sweet Home." Then the Union band began to play it, too, and as the bands played in unison, the boys from both North and South sang the greatest of all home songs together. As the great volume of song arose from the hearts of a hundred thousand men, they became again little boys, forgetting that they were bitter enemies and remembering only those loved folks waiting far away in Southern and Northern homes. They were little boys, called by the haunting melody to pleasant scenes of childhood days forever gone, to memories of mother, father, brothers and sisters now separated by death, time or distance; to memories of the pleasant home meal times, the long evenings together around the reading table and the warm wood fire—into which the horrors of war and the tragedy of separation had not yet come.

Just put the record on your phonograph, or get somebody to play the melody over softly for you on the piano, then close your eyes and picture the scenes that the words and music of "Home, Sweet Home" recall, and you will then know why it has lived a hundred years and will continue to live while folks hold the associations and memories of home as life's best treasures.

Pasture Crops

NO farmer would think of harvesting a crop of corn or oats until it is ripe. Good pasture is one of the most valuable crops, yet a majority of dairymen pay little attention to its improvement, and begin to harvest it too early by turning the cattle on it in the spring before the grasses have had a proper start. It is always a temptation to get the cattle out of the barn in the spring, particularly when the costs of feed are high, and returns for milk comparatively low. But it is a costly practice to yield to that temptation.

When they are turned out, the flow of milk too close cropping by feeding some hay at the can be kept up and the pasture saved from same time. The New Jersey State College of Agriculture says: "The food material in growing grass is manufactured by the green leaves and if the pasture is kept closely cropped, the leaf surface is decreased to such an extent that many of the roots die or are weakened through lack of nourishment. If the pastures are expected to grow and thrive, we must allow them to get a good start in the spring which will enable them to develop sufficient roots to carry them through the dry summer." Later in the summer when the pasture is most needed to keep up the flow of milk those that have been pastured too early are the first to turn brown and to become comparatively useless.

This year the cold season has greatly retarded the pastures in all Eastern States. In most sections they are at least two weeks late, and special care will have to be given by dairymen not to turn the cattle on them too early.

Quotations Worth While

Make one person happy each day and in forty years you have made 14,600 human beings happy for a little time at least.—

* * *

Honor is like an island, rugged and without a landing place; we can nevermore reenter, when we are once outside of it.

* * *

There is no place more delightful than one's own fireside.—CICERO.

* * *

Mutual brotherhood means mutual service. —LYMAN ABBOTT.

The Present Crisis

By JAMES RUSSELL LOWELL

WHEN a deed is done for Freedom, through the broad earth's aching breast
Runs a thrill of joy prophetic, trembling on from east to west,
And the slave, where'er he cowers, feels the soul within him climb
To the awful verge of manhood, as the energy sublime
Of a century bursts full-blossomed on the thorny stem of Time.

Through the walls of hut and palace shoots the instantaneous throe,
When the travail of the Ages wrings earth's systems to and fro;
At the birth of each new Era, with a recognizing start,
Nation wildly looks at nation, standing with mute lips apart,
And glad Truth's yet mightier man-child leaps beneath the Future's heart.

So the Evil's triumph sendeth, with a terror and a chill,
Under continent to continent, the sense of coming ill,
And the slave, where'er he cowers, feels his sympathies with God
In hot tear-drops ebbing earthward, to be drunk up by the sod,
Till a corpse crawls round unburied, delving in the nobler clod.

For mankind are one in spirit, and an instinct bears along,
Round the earth's electric circle, the swift flash of right or wrong;
Whether conscious or unconscious, yet Humanity's vast frame
Through its ocean-sundered fibres feels the gush of joy or shame;—
In the gain or loss of one race all the rest have equal claim.

Once to every man and nation comes the moment to decide,
In the strife of Truth with Falsehood, for the good or evil side;
Some great cause, God's new Messiah, offering each the bloom or blight,
Parts the goats upon the left hand and the sheep upon the right,
And the choice goes by forever 'twixt that darkness and that light.

Hast thou chosen, O my people, on whose party thou shalt stand,
Ere the Doom from its worn sandals shakes the dust against our land?
Though the cause of Evil prosper, yet 'tis Truth alone is strong,
And, albeit she wander outcast now, I see around her throng
Troops of beautiful, tall angels, to enshield her from all wrong.

Backward look across the ages and the beacon-moments see,
That, like peaks of some sunk continent, jut through Oblivion's sea;
Not an ear in court or market for the low foreboding cry
Of those Crises, God's stern winnowers, from whose feet earth's chaff must fly;
Never shows the choice momentous till the judgment hath passed by.

Careless seems the great Avenger; history's pages but record
One death-grapple in the darkness 'twixt old systems and the Word;
Truth forever on the scaffold, Wrong forever on the throne,—
Yet that scaffold sways the future, and, behind the dim unknown,
Standeth God within the shadow, keeping watch above his own.

We see dimly in the Present what is small and what is great,
Slow of faith how weak an arm may turn the iron helm of fate,
But the soul is still oracular; amid the market's din,
List the ominous stern whisper from the Delphic cave within,—
"They enslave their children's children who make compromise with sin."

Slavery, the earth-born Cyclops, fellest of the giant brood,
Sons of brutish Force and Darkness, who have drenched the earth with blood,
Famished in his self-made desert, blinded by our purer day,
Gropes in yet unblasted regions for his miserable prey;—
Shall we guide his gory fingers where our helpless children play?

Then to side with Truth is noble when we share her wretched crust,
Ere her cause bring fame and profit, and 'tis prosperous to be just;
Then it is the brave man chooses, while the coward stands aside,
Doubting in his abject spirit, till his Lord is crucified,
And the multitude make virtue of the faith they had denied.

Count me o'er earth's chosen heroes,—they were souls that stood alone,
While the men they agonized for hurled the contumelious stone,
Stood serene, and down the future saw the golden beam incline
To the side of perfect justice, mastered by their faith devine,
By one man's plain truth to manhood and to God's supreme design.

Read It Out Loud!

WE print the great poem by James Russell Lowell at this time because the world to-day stands at the most momentous cross-roads of its history. Although written December 18, 1844, before the Civil War crisis, this poem applies with even stronger force to the world's present crisis. Never before have men been called upon to make decisions of such far-reaching importance to future civilization as now. The time is here when

"Once to every man and nation comes the moment to decide
In the strife of truth with falsehood, for the good or evil side."—The Editors.

By the light of burning heretics Christ's bleeding feet I track,
Toiling up new Calvaries ever with the cross that turns not back,
And these mounts of anguish number how each generation learned
One new word of that grand *Credo* which in prophet-hearts hath burned
Since the first man stood God-conquered with his face to heaven upturned.

For humanity sweeps onward: where to-day the martyr stands,
On the morrow crouches Judas with the silver in his hands;
Far in front the cross stands ready and the crackling fagots burn,
While the hooting mob of yesterday in silent awe return
To glean up the scattered ashes into History's golden urn.

'Tis as easy to be heroes as to sit the idle slaves
Of a legendary virtue carved upon our father's graves,
Worshippers of light ancestral make the present light a crime;—
Was the Mayflower launched by cowards, steered by men behind their time?
Turn those tracks toward Past or Future, that make Plymouth Rock sublime?

They were men of present valor, stalwart old iconoclasts,
Unconvinced by axe or gibbet that all virtue was the Past's;
But we make their truth our falsehood thinking that hath made us free,
Hoarding it in mouldy parchments, while our tender spirits flee
The rude grasp of that great Impulse which drove them across the sea.

They have rights who dare maintain them; we are traitors to our sires,
Smothering in their holy ashes Freedom's new-lit altar-fires;
Shall we make their creed our jailer? Shall we, in our haste to slay,
From the tombs of the old prophets steal the funeral lamps away
To light up the martyr-fagots round the prophets of to-day?

New occasions teach new duties; Time makes ancient good uncouth;
They must upward still, and onward, who would keep abreast of Truth;
Lo, before us gleam her camp-fires! we ourselves must Pilgrims be,
Launch our Mayflower, and steer boldly through the desperate winter sea,
Nor attempt the Future's portal with the Past's blood-rusted key.

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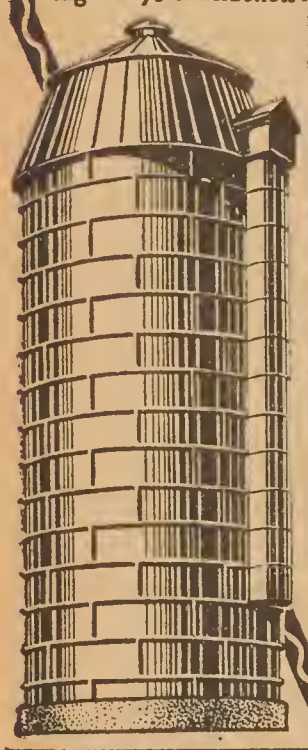

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New York Farm News

Farm Leaders Perfect Dairy Show Plans

THE World's Dairy Congress was given a decided push towards success by the big meeting of practically all farm leaders at Syracuse, on the evening of May 14. Members of both the New York State Conference Board of Farm Organizations and the Cooperative Council were present together with many other farm leaders, in addition to a large number of business men from Syracuse and elsewhere, who are cooperating to make the Dairy Show a success.

The leading address of the evening was made by Dr. E. V. McCollum, of Johns Hopkins University, celebrated the world over as the advocate of a larger consumption of milk. Another leading speaker was Senator Royal S. Copeland, formerly Commissioner of Health, of New York City. Other speakers who made short addresses included the leaders of nearly every State-wide farm organization. A temporary dairy show organization was perfected. Publicity and other plans were made to make the dairy show, to be held at Syracuse in October, a notable event in dairy history.

In the afternoon a joint meeting of the New York Conference Board of Farm Organizations was held with the New York State Cooperative Council organization. The recent repeal of the Mullan-Gage Law was given considerable discussion as were several other measures that were recently passed by the Legislature.

The chief feature of this meeting was an address by Senator Royal S. Copeland explaining both sides of the coal mining situation. He outlined both the arguments of the operators and those of the labor union, and gave the farm leaders present a very clear understanding of the complicated and much misunderstood coal strike which led to so much trouble and suffering during the past winter.

NORTHERN NEW YORK NOTES

The cold dry weather of the latter part of April has held back cultivation considerably. Right now a good warm rain followed by a period of sunshiny weather would be mighty helpful.

The maple sugar season which has just closed, was one of the poorest in several years. Only about 50 per cent of a normal crop was harvested, with syrup selling at $1.50 to $1.75 per gallon.

There is a marked shortage of farm labor this spring, although $55 to $60 a month with board is being freely offered. Sufficient help does not seem to be available even at that figure. In many cases acreage will necessarily have to be reduced in order that spring seeding may be finished on time. Farmers are looking forward to turning their stock out on pastures. Unless we get some better weather, pastures will not be in shape to stand grazing until the latter part of the month. Stock came through the winter in excellent condition. A good many farmers are purchasing tractors throughout this region. which helps out in a way to overcome the serious shortage of labor. —CHARLES L. STILES.

IN WESTERN NEW YORK

Ontario Co.—April was a month of dry cold winds which have been for most of the time out of the northwest. We had just two hot days in the month, on one of them the mercury went to 80 degrees in the shade. Grass is very backward in starting, no pasturage as yet. Coarse fodder will all be fed up. Those that fed steers are selling out at 8½ cents. Many are having bad luck with young lambs and pigs. Wheat that got a good start last fall looks good, otherwise it looks poor.—E. T. B.

Genessee Co.—Farm work in the townships of Batavia and Stafford is nearly two weeks behind time. Snow has covered the ground most of the time for the past two weeks. Farm labor is awfully scarce and high wages are being asked. It is said that there are three farms in the town of Byron that will lie idle this season on account of the high cost of labor that they are paying for help and other expenses, there would be nothing left for the owners.—G. E. B.

FIFTY CENT WOOL FOR 1923

F. E. ROBERTSON

The New York State Sheep Growers' Cooperative Association has just sold 45,000 pounds of wool which was consigned to the early pool at prices ranging from 40 cents per pound for the burry and seedy rejects to 53 cents per pound for ⅜ combing. In view of the fact that local buyers are offering from 35 to 45 cents for clips of ungraded wool it is evident that the growers can save money by marketing their own wool through their own cooperative association.

The association is now entering its fourth successful year of cooperative grading and marketing. All indications point to an increasing volume of wool to be handled by the association. Those who consigned to the early 1923 pool shipped an aggregate of 58,000 pounds, all of which has been sold except the Delaines and some choice quarter blood. Shipments to the main 1923 pool will be arriving during May, June and July. There seems to be a tendency to shear and consign wools earlier in the season than was the case a few years ago.

The Boston wool market quotations continue strong with no indications of any change up or down. The following prices represent the range of market values: Delaine, 55 @ 56 cents, ½ blood combing, 54 @ 55, ⅜ blood combing, 53 @54, ¼ blood combing, 52 cents. It is plain to see therefore that "fifty cent" wool closely indicates wool values to-day.

The State association has been doing some missionary work in the counties of Warren and Essex where the sheep growers, while keeping good sheep, are sadly handicapped in the matter of finding a good market for their clips. Much more wool from these counties will be consigned to the association warehouse at Syracuse, than in previous years. Shipments are also coming from growers in Vermont and Pennsylvania.

SNOW IN CENTRAL NEW YORK MAY 10

The unusual cold spell that reminded the entire East of the severity of the past winter and which established a record for the season of the year for low temperature, was accompanied by snow in several parts of New York State. Tompkins County and other Central New York sections were treated to a blanket of snow on May 10.

NEW YORK HOLSTEIN ASSOCIATION SALE SUCCESSFUL

According to word from M. C. Bond, Secretary of the New York State Holstein Association, which held its annual spring sale at Earlville, May 8 and 9, the sale was very successful. There were approximately 300 breeders present to bid on the 125 head consigned to the sale. Actual buyers were present from five different States.

According to Mr. Bond, 48 heifers averaged over $153 per head, while calves averaged over $187. Two cows topped the sale at $400 each, while several went for $300. A smoker was held on the evening of the first day of the sale during which United States Department of Agriculture motion pictures were shown. The Earlville Board of Trade took care of the refreshments and the entertainment.

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BERRY PLANTS Strawberry, Raspberry, Dewberry, Blackberry, Loganberry, Gooseberry, Currant, Grape plants.
VEGETABLE ROOTS Asparagus, Rhubarb, Hop, Horseradish roots.
VEGETABLE PLANTS Cabbage, Cauliflower, Celery, Tomato, Parsley, Egg Plant, Onion, Beet, Sweet Potato, Pepper plants.
FLOWER PLANTS Hollyhock, Canterberry Bells, Foxglove, Sweet William, Poppy, Phlox and other perennials; Pansy, Astor, Columbine, Salvia, Snapdragon, Zinnia and other annuals; Roses, Shrubs. *Catalog free.*
HARRY D. SQUIRES HAMPTON BAYS, N. Y.

$1,500 Gets 162-Acre Farm
Horses, 17 Cows and Calves, 7 yearlings, poultry, full implements, crops included; in one of country's best dairy-general farming sections; high school, village, depot advantages handy; city markets; 100 acres tillage, 30-cow spring-watered pasture, good woodlot; variety fruit; easily kept 9-room house, running water, 24-cow barn, stable, etc. Your chance to get good home and a money-maker; owner unable to operate, $4,500 takes all, only $1,500 needed. Details, page 48, Illus. Catalog—Bargains many states. Copy free. STROUT FARM AGENCY, 150 R Nassau St., New York City.

VEGETABLE PLANTS
26th YEAR. Cabbage and Snowball Cauliflower plants. Field grown. Two acres. Ready about May 1st. Cabbage, Early Jersey Wakefield, Copenhagen Market, Eukhuizen and eight other kinds. $2.25 per 1,000; 5,000, $10.00; 500, $1.50; 300, $1.00. Snowball Cauliflowers, $5.00 per 1,000; 500, $3.00; 300, $2.00; 200, $1.60; 100, $1.00. List free. No business done on Sundays.
FORD W. ROCHELLE & SONS, Chester, New Jersey

MILLIONS "FROSTPROOF" CABBAGE PLANTS
Copenhagen, Wakefields, Succession, &c., 300, $1.00; 500, $1.25; 1,000, $2.25. Mailed prepaid. Expressed 10,000, $15. Tomato and Sweet Potato plants, 300, $1.50; 500, $2.00; 1,000, $3.00. Expressed, 10,000, $20 cash. Don't take chances. Order from largest grower in Virginia. Guaranteed good delivery anywhere, or money refunded. J. P. COUNCILL COMPANY, Franklin, Va.

Strawberry Plants FOR SALE. Ask for Catalog telling all about the great Early Frost Proof strawberry. "Horsey" and 40 other varieties. Lucretia Dewberry, $12 per 1,000. Horseradish and other plants.
J. KEIFFORD HALL, R. No. 1, REID'S GROVE, MD.

HAMMOND'S SLUG-SHOT 1850 1915 AN INSECTICIDE FOR GARDEN USE USED SINCE 1850

SLUG SHOT
Used from Ocean to Ocean for 35 years
Sold by Seed Dealers of America

Saves **Currants, Potatoes, Cabbage, Melons, Flowers, Trees and Shrubs** from Insects. Put up in popular packages at popular prices. Write for free pamphlet on Bugs and [illegible]ghts, etc., to B. HAMMOND, Beacon, New York

How Shall We Control TB?

(*Continued from page* 435)

being possible for him to get the full value of his animals, while the owner of ordinary cattle, unless appraisals are very careful, gets the full value of his cattle or even makes a little money on them.

Summed up, the opinion was that the present indemnity maximums were none too high, and that careful appraising would adapt them to cheaper cattle.

Free Testing Not Favored

Several representatives were present from counties where Boards of Supervisors had made appropriations to pay the salary of veterinarians to test cattle free of charge, yet not a representative defended free testing as a permanent proposition. Only one representative argued in favor of it at all, he stating that were it not for free testing in his county the men would not test.

On the contrary, a number of men from counties, both where the owners pay for the test and where the testing is done free, stated themselves to be very definitely of the opinion that there was little use to test the herd of a man who was not interested enough to pay for having the work done.

The concensus of opinion along constructive lines seemed to be that cattle owners should pay for their tests, but that they should pay their fees into county organizations and that these county organizations should pay the veterinarians doing the work.

A few months ago, had a similar meeting been called, it is very likely that there would have developed considerable criticism of the work of the appraisers, the men who set the values on reacting cattle on which indemnities are based. Apparently the efforts of Director McLaury along the line of more careful appraising have met with success because when question No. 4 was asked not a man present felt that the general run of appraisals were much out of the line of real cattle values.

Follow Up Essential and Neglected

The men present at the conference showed their familiarity with bovine tuberculosis eradication by agreeing without exception to the necessity of thorough cleaning up and disinfection of premises where reacting animals are found and the careful safeguarding of healthy herds with reference to the introduction of new animals.

To a man they agreed that work of this kind had never been adequate until county committees had taken hold of the problem and injected the necessary local supervision.

Even with county commmittees functioning, it was the feeling of those present that the tendency is to neglect cleaning up, first, because the owners of herds where cattle react do not generally realize the importance of it; second, because they do not know how to do it effectively; and third, because a large number of men are naturally so careless that they never will do the work correctly.

Discussion of how to remedy this serious situation seemed to bring out the idea that the only hope is through more education as to the necessity of the work, closer local supervision by breeders and veterinarians, and in the event of deliberate neglect by men under the accredited herd plan, refusing them retests.

Area Testing Challenged

As was expected by the Committee from the conflicting evidence which it had already heard relative to the methods to be used in eradicating tuberculosis, the conference developed considerable difference of opinion relative to the so-called area plan of testing. As the discussion developed, certain fundamentals were brought out on which the minds of both groups appeared to meet.

In the first place it was agreed that there should be no definite size of unit for area work, that a clean area might be as small as a few farms in a neighborhood, a township, or even a whole county, the size of areas being limited entirely by the interest of the cattle owners concerned and their willingness to eradicate the disease.

It was further agreed that the only people capable of determining area limits are those who are on the ground; that is, the cattle owners of a county, and that it is exceedingly dangerous for outside officials to attempt to set up area testing.

It was further agreed that, for the best interests of the work, State and federal indemnity money should be used as generally throughout the counties of the State as there are interested cattle owners in the counties. In effect this would seem to the writer to mean that those present at the conference, while they believe in area work, had an entirely different conception of what constitutes an area than the popular one, and that what the representative cattle owners of the State really believe relative to area testing is that it is a development which follows the testing of individual herds, through the testing of herds in a neighborhood, then perhaps in a township and finally in a whole county.

There seemed to be no confidence in the results to be gained from the wholesale testing of cattle over a large area. This lack of confidence was due to the free test and perhaps due to the opportunity to dispose of inferior cattle at good prices and because every man tested but some did not clean up nor persist in the initial efforts by repeat testing.

The County Plans

Throughout all the discussion those present continually referred to their county organizations and it was easily discernable that some sort of a county organization whether a separate association composed of the men who have herds under the accredited herd plan of tuberculosis eradication, or committees of farm bureau associations, was considered desirable by all of those present.

As the Committee had already studied the various forms of county organization, and as it desired held in making up its mind as to the type best adapted to eradication work, the writer requested representatives of Tompkins, Cortland, and Madison counties, which counties have different plans, to briefly present these plans for discussion. Their different county plans will be discussed later.

TO MAKE STOCK THRIVE
NOTHING EQUALS

It supplies the proteins and minerals which Government experts have declared a necessity in the well-rounded ration. *Don't miss getting a copy of our feeding circular. It is free!*

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Engine Prices HIT BOTTOM
1½ H-P $37
Add $3.60 from Pittsburgh
2 H-P., 3½, 5 and 7 H-P. Get new schedule of low prices. Remember you are getting these bargain prices on the FAMOUS OTTAWA ENGINE

The most dependable engine. Starts easy, pulls more H-P. BIG BOOK FREE. Write.
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for every risk the Farmer takes-there is a Hartford Policy

A Valuable Booklet for Farm Owners and Managers

"MY PROPERTY" is a booklet that will help you know what property you have and what it is worth. It will be sent to owners and managers of farms who write for it—those who use the coupon printed below.

The Hartford has insured and saved thousands of farmers from loss. It knows that fire comes without warning, and turns buildings and their contents into blackened, charred ruins. The Hartford's agents know how to help you and their counsel is free. They help you list your property, and they show you how to plan your insurance so that you properly cover your house, your furniture, your barns, grain, produce, machinery, live stock and everything else you own.

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Mail the Coupon today for Your copy of this Farm Inventory Booklet

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Please send me a free copy of your inventory book—"MY PROPERTY."
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The most direct and cheapest marketing route from our factory to your farm is blazed by the new Moline Plan.

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A A. 5-19

"Certified" Luce's Favorite Corn

$15,000 invested in breeding and selecting this SPECIAL STRAIN

of Luce's Favorite, making a **disease free, high germinating, vigorous growing** Seed Corn, producing big yields of silage having exceptionally high feeding value.

At Cornell University this strain outyielded ordinary Luce's Favorite by over 29% per acre. 2000 farmers have proved the superiority of our Special Strain.

You need it—do not accept substitutes.

Write for quotations on genuine Grimm and other hardy Alfalfas.

CO-OP. G. L. F. EXCHANGE, Inc., SYRACUSE, N. Y.

Yours for $3.50 per bushel FREIGHT PAID SACKS FREE

CHEAP FEED
from your own land

THE most economical cattle feed is that raised on your farm providing you get good yields per acre. One ton of alfalfa or clover is worth two tons of common hay as a milk producer. When preparing fields for grain, harrow in one to two tons per acre of SOLVAY and sow alfalfa or clover. The feed bills you save will pay for the SOLVAY many times over.

Write for FREE booklet. It tells all about lime

SOLVAY PULVERIZED LIMESTONE

THE SOLVAY PROCESS COMPANY Syracuse, N. Y

HOMESPUN TOBACCO Chewing—5 lbs., $1.25; 10 lbs., $2.50; 20 lbs., $4.50. Smoking—5 lbs., $1.25; 10 lbs., $2.00; 20 lbs., $3.50. FARMERS' UNION MAYFIELD, KY.

Strawberry Plants, Raspberry and Blackberry fresh dug and postpaid at farmers' prices; circular on request. BROOKVIEW FARMS, R-5, PULASKI, N. Y.

New Jersey Cannery Crops Growers Plan Co-op

W. H. BULLOCK

CANNING crops growers in the central and southern part of New Jersey are moving toward a State cooperative association, the purpose being to bring about more effective production and distribution of the crop. Meetings earlier in the season provided for a committee which would assume leadership in bringing about a federation of cannery crops growers. No attempt will be made to have the State association in shape for decisive work this season, organization plans not as yet being sufficiently complete. During the past two years the cannery growers have been discussing the situation and through their committees, appointed as the outgrowth of such meetings, they have already some favorable relations with canners. The association in prospect will purpose to follow out the same line of effort.

* * *

The Jersey Fruit Growers' Cooperative Association by the addition of new members now has under its direction the sale of approximately 75 per cent of the summer apple crop in the State. The association recently became a member of the Federated Fruit and Vegetable Growers and the carlot sales of peaches and some summer apples will be handled by that distributing organization. The association itself will be handled by that distributing and through the New Jersey territory.

* * *

Rural dramatics have been popular in New Jersey this season, and many granges and other farm organizations have been staging plays. "Oak Farm" is one drama which has been widely played. Mock trials have also been well received. The Salem County Pomona Grange recently staged both events, drawing over 250 members and their friends to the gathering. The next meeting of the Salem Pomona comes at Friesburg, N. J., on July 11.

* * *

Although a number of bills designed to amend trespass regulations failed to receive determining action on the part of the Legislature, one measure proposed by the New Jersey Fish and Game Conservation League was passed by the Legislature. It removes somewhat the strict protection which farmers had under the old trespass measures by requiring that all land must be posted conspicuously on the corners of the property, along the roads or highways, on all border lines, and at each point where a stream enters or leaves. The requirement for written permit from owner or tenant of farm that is posted is still required. Under the old law fewer "no trespass" signs were needed. The maximum fine for trespass, however, is increased to $500. The Fish and Game Conservation League has a standing offer of $10 reward for the conviction of a person wilfully damaging the property while hunting or fishing.

* * *

Contracts for the growing of canning crops are now being drawn. Prices have not greatly changed from last year in most of the eastern territory. It is rumored that Heinz has agreed to pay the South Shore Association $15 a ton for tomatoes, an increase of $2.50 over last year. Campbell Soup expects to pay $20 for both early and late, delivered.

Before You Invest, Investigate!

(*Continued from page* 434)

Broadway, you can avail yourself of information concerning any security offered you about which you are in doubt. In this connection you will find it permanently profitable to make a binding agreement with yourself, your family and your friends to always investigate before you invest, now that the legitimate business men of New York, are trying to help you, help yourself and prevent losses arising out of misrepresented, improperly termed "investments", which may be of assitance to you, if you will make it a fixed rule to look well before you lose and to take plenty of time to investigate before you invest.

World's Best Roofing at Factory Prices

"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Sidings; Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Save money—get better quality and lasting satisfaction.

Edwards "Reo" Metal Shingles

have great durability—many customers report 15 and 20 years' service. Guaranteed fire and lightning proof.

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LOW PRICED GARAGES Lowest prices on Ready-Made Fire-Proof Steel Garages. Set up any place. Send postal for Garage Book, showing styles. THE EDWARDS MFG. CO. 312-362 Pike St. Cincinnati, O.

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BUY A WITTE

Save The DIFFERENCE

Get a better engine—New Throttling Governor. Runs on Kerosene, Gasoline, Distillate or Alcohol. All sizes. Big New Catalog FREE 2 to 25 H-P., at proportionate prices. All styles. Ready to use. See catalog for full details.

5 H-P.—Pulls 6¾ **$99.00** At K.C. Pittsburgh, $107 Frisco, $123

WITTE ENGINE WORKS
1804 Oakland Ave., Kansas City, Mo.
1804 Empire Building, Pittsburgh, Pa.
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SAVE HALF Your Paint Bills

BY USING **Ingersoll Paint** PROVED BEST by 80 years' use. It will please you. The ONLY PAINT endorsed by the "GRANGE" for 47 years. Made in all colors—for all purposes.

Get my FREE DELIVERY offer From Factory Direct to You at Wholesale Prices

INGERSOLL PAINT BOOK—FREE

Tells all about Paint and Painting for Durability. Valuable information FREE TO YOU with Sample Cards. Write me. DO IT NOW. I WILL SAVE YOU MONEY. Oldest Ready Mixed Paint House in America—Estab. 1842

O. W. Ingersoll, 252 Plymouth St., Brooklyn, N. Y.

Big Sale Now

30 Days' Trial **OTTAWA** $91.50 F.O.B. Ottawa Kans. From Pittsburgh, Pa. $97.25

Prices Smashed on this better, faster cutting machine. Saws logs, limbs; falls trees. 10-year Guarantee. Cash or Easy Terms. Free Book and Special Offer. Write quick before sale ends!

OTTAWA MFG. COMPANY
801Q Wood Street, OTTAWA, KANS. Room 801-Q Magee Bldg. PITTSBURGH, PA.

Cut Cost Ditch, Terrace

Grade roads, build dykes, levees with The Martin Farm Ditcher and Grader

Works in any soil. Makes V-shaped ditch or cleans ditches up to four feet deep. Horses or tractor. Get my great labor and cost saving story.

10 Days' FREE Trial

Owensboro Ditcher & Grader Co., Inc. Box 252 Owensboro, Ky.

17¢ A Rod and Up

Now Buy Peerless Fence

Write for our free 104-Page Catalog showing LOWEST prices on quality

DIRECT FROM FACTORY.

Famous Peerless Line of Fence, Farm Gates, Roofing, Paints NOW sold direct from Factory at 40% lower prices.

PEERLESS WIRE & FENCE CO. Dept. 3003 CLEVELAND, OHIO

Green Mountain SILO

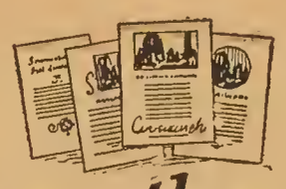
Will it Stand? YES

WRITE FOR CIRCULAR

THE CREAMERY PACKAGE MFG. CO.
350 WEST ST. RUTLAND, VT.

NATURAL LEAF TOBACCO SELECT QUALITY CHEWING

5 lbs. $1.75; 10 lbs. $3; 20 lbs. $5. Smoking, 5 lbs. $1.25; 10 lbs. $2; 20 lbs. $3.50. Try it at our risk; money refunded if tobacco returned. COOPERATIVE TOBACCO GROWERS, SEDALIA, KY.



Give a thought to Advertising

When is a cow a cow, and when is a cow a care?

Sounds like a catch question, but there's some real meat in it when you carve under the surface.

A cow is a cow when it's fat and healthy and yielding a profit to its owner. But when it's thin, run down and costing more to keep alive than it's worth—then a cow is a care. And then's the time to look through your copy of the American Agriculturist and other farm papers to find out how to get the cow to pay its board bill.

Again the advertisements step to the front and do their share to help the farmer.

There are advertisements of reliable cures for different ailments. Follow the directions and you increase the chances of having paying cows. Or possibly you will decide to try a different breed of cattle. You find advertisements telling the good points of the different breeds and where you can get them. So without very much trouble you can solve your cattle problems from the advertisements alone.

* * * * * * * * *

For the dairyman there are advertisements of all the equipment that he uses. A trip through the advertising columns of a good paper is equivalent to a trip through a store containing more than one make of each different product. You can learn all about each product, its advantages and uses, and its price. And infinitely less trouble than a trip to the nearest store; and more information gained.

* * * * * * * * *

On the receiving end there is no doubt that a dairyman or cattle raiser benefits by advertising. And when he comes to selling stock, the advertisements offer him a nearly unlimited and practically sure market for all he wishes to dispose of.

* * * * * * * * *

Advertising works two ways in every industry. It serves as a buying guide for equipment, supplies and stock. And then in the other direction it works as a whole force of busy salesmen helping the producer to market his product.

* * * * * * * * *

Every breed of cattle has its champions. And nearly every breed is backed by an association that extols its merits. Advertising is the natural medium that these associations turn to, to tell the buying public the advantages of their breed. And in no other way could the farmers learn so conveni ntly and extensively about the different kinds of cattle. Advertising is a big store, a force of salesmen and a school combined. It pays to advertise — it pays to give a thought to advertising—it pays to read the advertisements.

Advertising Manager

National Grange Will Come to Pennsylvania

MANY important organization plans and association gatherings are scheduled in Pennsylvania for the coming season. Among the most important are the State and National Grange meetings to be held next fall. The Pennsylvania State Grange at a recent executive meeting has decided to hold its annual session at Pittsburgh, Pa., in conjunction with the annual gathering of the National Grange, which comes to Pennsylvania for the first time in a quarter of a century. The meeting of the State Grange will commence on November 12, and will follow through until November 14, when the National Grange begins its regular 10-day session.

According to Master John McSparrin of the Pennsylvania State Grange, arrangements will be shortly under way for the largest Seventh Degree class that has ever come up for initiation at the annual meeting of the National Grange. With Pittsburgh centrally located to a large grange membership in the Eastern States and within easy call of the middle western granges an exceptionally large and important meeting is expected.

* * *

The fight is still on at Harrisburg to secure adequate appropriation for the Pennsylvania State College. The House recently received a bill asking for $3,200,352 for maintenance of the college work and for various lines of research badly needed in the State and at the present time unsupported. Of the requested sum, $500,000 would be for agricultural extension and $90,000 for engineering and mining extension work. The appropriation in Pennsylvania is on a two-year basis, and provision must be made by the present Legislature for the period from July 1, 1923, to July 1, 1925. The amount requested for the summer sessions of 1923 and 1924 is $71,040. The situation at Penn State has been so critical for lack of funds that the college authorities claim inability to support a freshman class next year unless the appropriations are granted.

* * *

Farmers of Lancaster County, Pa., which county boasts that 50 per cent of its farmers feed cattle every winter, are looking forward to the Third Annual Lancaster Fat Cattle Show, which will be held at the Lancaster stockyards June 6 and 7. As in previous shows the competition is open only to those animals which were purchased by farmers through the Lancaster stockyards. The animals entered must have been on feed prior to the close of the first week in March in order to be eligible for prizes.

* * *

The Holstein men in Luzerne County, Pa., recently formed a county organization to boost the breed and increase the reputation for breeding animals and milkers produced in the county. The Chester County Holstein men, who have had an active organization for sometime, have scheduled a county tour for May 24. The York County Holstein Breeders' Association, another organization active for the breed, is now organizing a calf club and to date has enrolled about 25 members. A cow-testing association and a county tour to give publicity to the breed are also contemplated.

* * *

The number of motor trucks found on Pennsylvania farms shows a rapid increase, according to the annual State census. The Pennsylvania State Department reports 21,791 motor trucks now on farms. The leading county is Luzerne with 1,476 trucks, closely followed by Alleghany, Berks and Schuylkill counties, each of which have over 1,100 trucks. The survey shows that 65 per cent of Pennsylvania farmers have motor vehicles.

* * *

Apparently Pennsylvania voters will have before them at some future election date, a proposed constitutional amendment concerning an $8,000,000 bond issue for the Pennsylvania State College. A joint resolution to this effect has passed both houses of the Legislature. However, the measure must come up again for Legislative approval in two years, and then go to the voters for their sanction.—W. H. B.

Oldest DE LAVAL SEPARATORS

Average 24 Years of Use

The most remarkable evidence, giving additional proof of the exceptional quality and durability of De Laval Cream Separators, was disclosed by the "Oldest Users Contest" which closed on April 7th. Thousands of old De Laval Separators from all parts of the North American continent were entered. We wish to thank all who participated in this contest for their splendid co-operation in securing the data, which gives an accurate idea of just how long a De Laval will last when properly cared for.

The average life of the "Oldest De Lavals," all of which are still being used, was a little over 24 years. The oldest De Laval entered is 32 years old and is owned by Joseph Larocque of Lancaster, Ont., Canada.

In view of the fact that the average life of cream separators other than De Lavals is about five years, it can readily be seen from such unquestionable proof that the De Laval is not only the best but four to five times cheaper than other cream separators—and, remember, the 1923 De Laval is better than ever, has over four times the capacity of these old machines, is greatly improved, costs less, and will last even longer.

The Prize Winners

States are first listed in alphabetical order, followed by the name of the winner, each of whom has received the prize of $25, their address, and the age of the De Laval which won first place in that state:

Ala., R. M. Davis, Talladega, 24 yrs.; Ariz., L. L. Prouty, Casa Grande, 19 yrs.; Ark., Medlock Dairy Farm, Arkadelphia, 29 yrs.; Cal., B. M. Martin, Newark, 18 yrs.; Colo., M. Miller, Westcliffe, 24 yrs.; Conn., Mrs. E. Lanz, Rockville, 31 yrs.; Del., C. D. Lamborn, Newark, 28 yrs.; Fla., Mrs. S. R. Pyles, Ocala, 12 yrs.; Ga., C. L. Foster, Dalton, 23 yrs.; Ida., P. G. Fairman, Jerome, 20 yrs.; Ill., F. G. Palmer, Yorkville, 28 yrs.; Ind., F. Molter, Lawrenceburg, 28 yrs.; Ia., M. Wollrob, Kalona, 31 yrs.; Kans., D. W. Morrow, Blue Rapids, 30 yrs.; Ky., H. M. O'Nan, Springfield, 27 yrs.; La., P. H. Sitger, New Orleans, 12 yrs.; Me., R. C. Briggs, Freedom, 24 yrs.; Md., Mrs. E. Holbrook, Owings Mills, 24 yrs.; Mass., W. D. Smith, Buckland, 27 yrs.; Mich., F. Downs, Nashville, 24 yrs.; Minn., C. H. Brueshoff, Norwood, 29 yrs.; Miss., W. H. Reese, Sessums, 18 yrs.; Mo., L. M. Lortz, Carl Junction, 23 yrs.; Mont., M. E. Nelson, Flatwillow, 24 yrs.; Neb., I. C. Nichols, Miller, 22 yrs.; Nev., J. Huttman, Fallon, 17 yrs.; N. H., E. L. Jewett, Sullivan, 25 yrs.; N. J., M. H. Astle, Vineland, 30 yrs.; N. M., C. W. Jackard, Hayden, 20 yrs.; N. Y., Mrs. J. P. Morris, Olean, 30 yrs.; N. C., A. B. McAulay, Huntersville, 24 yrs.; N. D., Fred Jenson, Norma, 25 yrs.; Ohio, Lee Nash, Xenia, 29 yrs.; Okla., Lee Armstrong, Seiling, 20 yrs.; Ore., Clinkinheard Bros., Marshfield, 28 yrs.; Pa., M. Lazar, Sharpsville, 29 yrs.; R. I., A. F. Clark, Westerly, 28 yrs.; S. C., Mrs. J. E. McIver, Darlington, 18 yrs.; S. D., H. Moseman, White Lake, 27 yrs.; Tenn., D. B. Hancock, E. Chattanooga, 24 yrs.; Tex., Mrs. F. P. McClure, San Antonio, 22 yrs.; Utah, F. W. Cowley, Venice, 21 yrs.; Vt., Ashton Soule, St. Albans, 31 yrs.; Va., Mrs. G. Hylton, Floyd, 22 yrs.; Wash., M. Kintschi, Edwall, 23 yrs.; W. Va., J. W. Walker, Wellsburg, 27 yrs.; Wis., H. Petersen, Oconomowoc, 30 yrs.; Wyo., P. Catlin, Wheatland, 20 yrs.; Hawaii, H. Iten, Mt. View, 12 yrs.

The 1923 De Laval is better than ever

As good as these old De Laval Separators are, the 1923 De Laval is still better. Naturally much has been learned in the design and manufacture of cream separators during the past 40 years, and purchasers of present-day machines reap the benefit of such experience.

Twenty-five years ago a De Laval Separator of 250 lbs. capacity per hour cost $125—today one of the largest sized De Lavals with 1000 lbs. or four times the capacity per hour, can be bought for approximately the same amount of money, and one of about the same capacity can be bought for approximately half. In addition it has many improvements in design and construction, is made of better materials, does better work, is easier to handle and care for, and will last even longer. This applies to all sizes of present-day De Lavals.

If you are using an inferior or worn-out separator, you may be wasting enough butter-fat to pay for a new De Laval and not get it. You can buy a De Laval on such easy terms that it will pay for itself. See your De Laval Agent now or write us about getting a new one.

The De Laval Separator Company

165 Broadway, New York — 29 E. Madison St., Chicago — 61 Beale Street, San Francisco

Sooner or later you will use a De Laval Cream Separator and Milker

SPRAY FOR BIG CROPS of POTATOES

Cover foliage with fine mist spray, top and bottom, with Yellow Jacket (traction) Sprayer. Two, four or six rows. Strong pressure. Write to-day for catalog of OSPRAYMO Line of Sprayers—41-year favorites. All sizes for all uses, power rigs to hand pumps.
Address: Field Force Pump Co., Dept. 10, Elmira, N. Y.

Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.

Electric Wheel Co.
2 Elm St., Quincy, Ill.

THIS IS *YOUR* MARKET PLACE

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Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

BRED TO LAY—Day-old chicks, S. C. White Leghorns: May, $15 per 100; June, $12 per 100. Barred Rocks, Reds, White Wyandottes: May, $18 per 100; June, $14 per 100. Eggs at $5 per 100. Giant Pekin Duckling, 25 cents each. Eggs, $1.50 per 11. All orders postpaid. P. H. PORAY, R. 2, Williamson, N. Y.

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BEST BREEDS. Chickens, Ducks, Geese, Turkeys. Stock and hatching eggs. Satisfaction guaranteed. Catalogue free. H. A. SOUDER, Box G, Sellersville, Pa.

BROTHER—We make a specialty of S. C. W. Leghorn Chicks, bred with the winter lay, farm raised; circular free. OAK HILL POULTRY FARM, Route 2 B, Bath, N. Y.

CHICKS—10-weeks pullets from Cornell Certified Leghorns, 250 egg strain. Large fowls, 95% chalk-white eggs. Low price. E. COYLE, Branchport, N. Y.

TEN CHOICE BOURBON RED Turkey Eggs, $5. From pure-bred free range birds. Order from this. GEO. LEHMAN, Amaranth, Pa.

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PEKIN DUCKS, $3.50 each; pen Jersey Black Giants, $25; hatching eggs, $3.50 per 15 up. A. MORITZ, Rahway, N. J.

THOMPSON RINGLET ROCK EGGS — 15 eggs for $2.25. Address ROY HILTS, Gouverneur, N. Y.

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TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point, Ohio.

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ENGLISH AND WELSH SHEPHERDS, 30 generations, breeding from proven Sires and Dams from natural herders, 4 months old pups working with old dogs. Order early. GEORGE BOORMAN, Marathon, N. Y.

SCOTCH COLLIE PUPPIES — From registered stock. Great workers. New York State Fair winner. H. S. McLOUD, Port Byron, N. Y.

FOXHOUND BARGAIN—1 year, black and tan, long ears, untrained, $15 C. O. D. H. S. OSTRANDER, Mellenville, N. Y.

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FOX, COON AND RABBIT HOUND PUPS—LAKE SHORE KENNELS, Himrod, N. Y.

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BULBS CREATE BEAUTY—Dahlias whose labels have become detached, 1 dozen $2. These bulbs are from established varieties retailing from 50 cents to $15. 1 dozen labelled, mixed, $4. Gladioli sold out. A. D. FIELD, Dahlia & Gladioli Grower, R. F. D., Long Branch, N. J.

CABBAGE AND TOMATO PLANTS—Field grown, any variety, wholesale and retail, 50 cents per 100; $1 per 300; $1.75 per 500; $2.25 per 1,000, postpaid. Special prices in large quantities. Satisfaction guaranteed or money refunded. THE DIXIE PLANT COMPANY, Franklin, Va.

CABBAGE AND TOMATO PLANTS — Any variety, field grown, 50 cents per 100; $1 per 300; $1.75 per 500; $2.25 per 1,000, postpaid. Special prices in thousand lot shipments by express. RIVERSIDE PLANT FARM, Franklin, Virginia.

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SURPLUS CANNAS, DAHLIAS—Per dozen, $1; Gladiolus, per dozen 25 cents; assorted tubers from 100 kinds. SHELLROAD GREENHOUSES, Colgate, Md.

CERTIFIED RUSSET RURAL SEED POTATOES, average yield, 306 bushels per acre. Write for circular. HAROLD F. HUBBS, Kirkville, N. Y.

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FOR SALE—Farm of 200 acres, all equipped, immediate possession, all crops in the ground, for $4,000, part cash. Bring your family and move right in. Splendid buildings. For particulars write the owner. ROBERT RYDER, Cold Brook, Route 1, N. Y.

FOR SALE—Well stocked and equipped dairy farm on improved road, 10 minutes' drive to city market. Established business. For particulars write H. MORTON BENDER, So. Oil City, Pa.

CATTLE

GUERNSEY BULL—14 months old, dam a daughter of Langwater Cavalier; sire Ultra's Itchen King, a grandson of Itchen Daisy's May King of Langwater. W. B. AVERY, Aurora, N. Y.

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FOR SALE—Two pure-bred Red Poll Bull Calves, 8 months old, registered and tubercular tested. BANKSON BROS., Rouseville, Pa.

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PURE-BRED AYRSHIRE bull calves, $25. Herd clean by Federal test. HARRINGTON BROS., R. 5, Canton, N. Y.

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REGISTERED DUROC BRED SOWS — $30 including papers. Year old, will farrow in June. Sensation breeding. CHAS. MEARSON, Weedsport, N. Y.

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ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, Mo., immediately.

BEES

WILLONDELL ITALIAN 3 BAND Bees and Queens are good bees that bring results. With queens, 2 frame nuclei, $4; 3 frame, $5.25; jumbo frames, 50 cents; extra queens, $1.25 each. H. S. OSTRANDER, Mellenville, N. Y.

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WANTED HOUSEKEEPER—By Protestant widower, farmer. Best of references required and expect to furnish same. LOCK BOX 427, Corning, N. Y.

CATTLE BREEDERS

Fecundity!

Fecundity, the ability to produce strong, healthy calves regularly, is essential to a profitable dairy cow.

FECUNDITY IN HOLSTEINS MEANS:

Full value from prepotent sires --

Assurance of regular herd increases year after year -- Extra profit from sale of surplus stock --

Regular freshenings and consequen increased milk production for the whole herd -- Larger annual net profits.

Let Us Tell You About Holsteins.

EXTENSION SERVICE,
The Holstein-Friesian Association of America
230 East Ohio Street, Chicago, Ill.

HOLSTEINS

Glista Heifer Calves

SIRE: Korndyke Pontiac Glista, No. 268342, a grandson of the great Cornell cow, Glista Ernestine with seven records of over 30 lbs. butter in 7 days. Best record 677.3 lbs. milk, 34.22 lbs. butter 7 days.

These calves are from high producing dams, most of which have good A. R. O. records. Price ranging from $50 to $75 according to record and breeding of dam. Herd is T. B. tested.

BRADLEY FULLER, Utica, N. Y.

FOR SALE

GUERNSEYS——HOLSTEINS

Otsego Co. has 820 herds of cattle tuberculin tested and under Federal supervision, from which we purchase our supply.

We endeavor to have on hand 50 head of high-grade, high-producing cattle.

Hindsdale Farm, Springfield Center, N. Y.

HIGH-GRADE HOLSTEIN COWS

fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.

Browncroft Farm McGRAW New York

MALE HELP WANTED

SINGLE MAN—On dairy farm. Wages $45 per month with board. V. LIEB, West Danby, N. Y.

AGENTS WANTED

AGENTS—Our soap and Toilet article plan is a wonder. Get our free samples case offer. HO-RO-CO., 177 Locust St., St. Louis, Mo.

MISCELLANEOUS

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

BEST EXTENSION LADDERS made, 23 cents per foot. Freight paid. A. L. FERRIS, Interlaken, N. Y.

CATTLE BREEDERS

NOTE that a Milking Shorthorn holds the World's Record for production of milk and fat on two milkings per day. We have a few bulls of exceptional quality and breeding for sale, sired by Gen. Walby, a son of the famous Gen. Clay and out of Imp. Walby Belle.

WAMPATUCK FARM, CANTON, MASS.

Holstein Cows For Sale

125 cows that are due to freshen within the next 60 days. They are as fine a lot of dairy cows as you could wish to see and are just as good as they look. You can save money by buying now.

A. F. SAUNDERS

Telephone 1476 CORTLAND, N. Y.

HOLSTEIN BULL Born Dec. 7th, 1921. Sired by a 33-pound Son of King of the Pontiacs, Dam is 24.95-pound daughter Changeling Butter Boy. He is nicely marked, splendid individual, well grown and ready for service. Priced to sell.

FRED. A. BLEWER
Owego, N. Y.

HOLSTEINS

Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. **J. A. LEACH, CORTLAND, N. Y.**

HIGH GRADE HOLSTEIN HEIFER CALVES $15

each; registered bull and heifer calves, $25 up; registered bulls ready for service, and cows. Address

SPOT FARM, TULLY, N. Y.

SWINE BREEDERS

PIGS

Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.50 each; 8 to 9 weeks old, $7.50 each.

Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.

K. H. SPOONER, WALTHAM, MASS.

100 PIGS FOR SALE 100

Yorkshire and Chester White Crossed and Chester and Berkshire Crossed; all large growthy pigs bred from the best of stock that money can buy. Pigs, 6 to 7 weeks old, $6 each; 8 to 9 weeks old, $6.50 each; on approval C. O. D. any part of the above lot.

WALTER LUX, 388 Salem St., Woburn, Mass.

LARGE BERKSHIRES AT HIGHWOOD

Grand champion breeding. Largest herd in America. Free booklet.
HARPENDING Box 10 DUNDEE, N.Y.

Registered Spotted Poland Chinas The coming hog. Write for prices. Spring pigs shipped C.O.D., guaranteed. Brookside Farm, Middletown, Virginia

LARGE SMOOTH O.I.C's of quality, Schoolmaster and Liberty-Loan blood lines
PINECREST FARMS Pine Valley, N. Y.

REGISTERED O. I. C. AND CHESTER WHITE PIGS.
E. P. ROGERS, WAYVILLE N. Y.

HORSES AND MULES

FOR SALE CHEAP

Large Registered Jacks — Three Registered Jennys

Can show fine Mules by this Jack. Cash or good note.

OSWEGO RIVER STOCK FARMS, Phoenix, New York

The Brown Mouse—*By Herbert Quick*

CHAPTER I

A MAIDEN'S "HUMPH!"

A FARM-HAND nodded in answer to a question asked him by Napoleon on the morning of Waterloo. The nod was false, or the emperor misunderstood—and Waterloo was lost. On the nod of a farm-hand rested the fate of Europe.

This story may not be so important as the battle of Waterloo—and it may be. I think that Napoleon was sure to lose to Wellington sooner or later, and therefore the words "fate of Europe" in the last paragraph should be understood as modified by "for a while." But this story may change the world permanently. We will not discuss that, if you please. What I am endeavoring to make plain is that this history would never have been written if a farmer's daughter had not said "Humph!" to her father's hired man.

Of course she never said it as it is printed. People never say "Humph!" in that way. She just closed her lips tight in the manner of people who have a great deal to say and prefer not to say it, and—I dislike to record this of a young lady who has been "off to school," but truthfulness compels—she grunted through her little nose the ordinary "Humph!" of conversational commerce, which was accepted at its face value by the farm-hand as an evidence of displeasure, disapproval, and even of contempt. Things then began to happen as they never would have done if the maiden hadn't "Humphed!" and this is a history of those happenings.

Jim brought from his day's work all the fragrances of next year's meadows. He had been feeding the crops. All things have opposite poles, and the scents of the farm are no exception to the rule. Just now, Jim Irwin possessed in his clothes and person the olfactory pole opposite to the new-mown hay, the fragrant butter and the scented breath of the lowing kine—perspiration and top-dressing.

He was not quite so keenly conscious of this as was Jennie Woodruff. Had he been so, the glimmer of her white dress on the bench under the basswood would not have drawn him back from the gate. He had come to the house to ask Colonel Woodruff about the farm work, and having received instructions to take a team and join in the road work next day, he had gone down the walk between the beds of four o'clocks and petunias to the lane. Turning to latch the gate, he saw through the dusk the white dress under the tree and drawn by the greatest attraction known in nature, had reentered the Woodruff grounds and strolled back.

A BRIEF hello betrayed old acquaintance, and that social equality which still persists in theory between the work people on the American farm and the family of the employer. A desultory murmur of voices ensued. Jim Irwin sat down on the bench—not too close, be it observed, to the white skirt. . . . There came into the voices a note of deeper earnestness, betokening something quite aside from the rippling of the course of true love running smoothly. In the man's voice was a tone of protest and pleading. . . .

"I know you are," said she; "but after all these years don't you think you should be at least *preparing* to be something more than that?"

"What can I do?" he pleaded. "I'm tied hand and foot. . . . I might have. . ."

"You might have," said she, "but, Jim, you haven't . . . and I don't see any prospects. . . ."

"I have been writing for the farm papers," said Jim; "but . . ."

"But that doesn't get you anywhere, you know. . . . You're a great deal more able and intelligent than Ed—— and see what a fine position he has in Chicago. . . ."

"There's mother, you know," said Jim gently.

"You can't do anything here," said Jennie. "You've been a farm-hand for fifteen years . . . and you always will be unless you pull yourself loose. Even a girl can make a place for herself if she doesn't marry and leaves the farm. You're twenty-eight years old."

"It's all wrong!" said Jim gently. "The farm ought to be the place for the best sort of career—I love the soil!"

"I've been teaching for only two years, and they say I'll be nominated for county superintendent if I'll take it. Of course I won't—it seems silly—but if it were you, now, it would be a first step to a life that leads to something."

"Mother and I can live on my wages—and the garden and chickens and the cow," said Jim. "After I received my teacher's certificate, I tried to work out some way of doing the same thing on a country teacher's wages. I couldn't. It doesn't seem right."

JIM rose and after pacing back and forth sat down again, a little closer to Jennie. Jennie moved away to the extreme end of the bench, and the shrinking away of Jim as if he had been repelled by some sort of negative magnetism showed either sensitiveness or temper.

"It seems as if it ought to be possible," said Jim, "for a man to do work on the farm, or in the rural schools, that would make him a livelihood. If he is only a field-hand, it ought to be possible for him to save money and buy a farm."

"Pa's land is worth two hundred dollars an acre," said Jennie. "Six months of your wages for an acre—even if you lived on nothing."

"No," he assented, "it can't be done. And the other thing can't, either. There ought to be such conditions that a teacher could make a living."

"They do," said Jennie, "if they can live at home during vacations. *I* do."

"But a man teaching in the country ought to be able to marry."

"Marry!" said Jennie, rather unfeelingly, I think. "*You* marry!" Then after remaining silent for nearly a minute, she uttered the syllable—without the utterance of which this narrative would not have been written. "*You* marry! Humph!"

Jim Irwin rose from the bench tingling with the insult he found in her tone. They had been boy-and-girl sweethearts in the old days at the Woodruff schoolhouse down the road, and before the fateful time when Jennie went "off to school" and Jim began to support his mother. They had even kissed—and on Jim's side, lonely as was his life, cut off as it necessarily was from all companionship save that of his tiny home and his fellow-workers of the field, the tender little love-story was the sole romance of his life. Jennie's "Humph!" retired this romance from circulation, he felt. From another girl it would have been bad enough, but from Jennie Woodruff—and especially on that quiet summer night under the linden—it was insupportable.

"Good night," said Jim—simply because he could not trust himself to say more.

"Good night," replied Jennie, and sat for a long time wondering just how deeply she had unintentionally wounded the feelings of her father's field-hand; deciding that if he was driven from her forever, it would solve the problem of terminating that old childish love affair which still persisted in occupying a suite of rooms all of its own in her memory; and finally repenting of the unpremeditated thrust which might easily have hurt too deeply so sensitive a man as Jim Irwin. But girls are not usually so made as to feel any very bitter remorse for their male victims, and so Jennie slept very well that night.

Great events, I find myself repeating, sometimes hinge on trivial things. Considered deeply, all those matters which we are wont to call great events are only the outward and visible results of occurrences in the minds and souls of people. Sir Walter Raleigh thought of laying his cloak under the feet of Queen Elizabeth as she passed over a mud-puddle, and all the rest of his career followed, as the effect of Sir Walter's mental attitude. Elias Howe thought of a machine for sewing, Eli Whitney of a machine for ginning cotton, George Stephenson of a tubular boiler for his locomotive engine, and Cyrus McCormick of a sickle-bar, and the world was changed by those thoughts, rather than by the machines themselves. As a man thinketh so is he; and as men think so is the world. Jim Irwin went home thinking of the "Humph!" of Jennie Woodruff—thinking with hot waves and cold waves running over his body, and swellings in his throat. Such thoughts centered upon his clubfoot made Lord Byron a great sardonic poet. That club foot set him apart from the world of boys and tortured him into a fury which lasted until he had lashed society with the whips of his scorn.

Jim Irwin was not clubfooted; far from it. He was bony and rugged and homely, with a big mouth, and wide ears, and a form stooped with labor. He had fine, lambent, gentle eyes which lighted up his face when he smiled, as Lincoln's illuminated his. He was not ugly. In fact, if that quality which fair ladies—if they are wise—prize far more than physical beauty, the quality called charm, can with propriety be ascribed to a field-hand who has just finished a day of the rather unfragrant labor to which I have referred, Jim Irwin possessed charm. That is why little Jennie Woodruff had asked him to help with her lessons, rather oftener than was necessary, in those old days in the Woodruff schoolhouse when Jennie wore her hair down her back.

BUT in spite of this homely charm of personality, Jim Irwin was set off from his fellows of the Woodruff neighborhood. He was different. In local parlance, he was an off ox. He failed to matriculate in the boy banditti which played cards in the haymows on rainy days, told stereotyped stories that smelled to heaven, raided melon patches and orchards, swore horribly like Sir Toby Belch, and played pool in the village saloon. He had always liked to read, and had piles of literature in his attic room which was good, because it was cheap. Very few people know that cheap literature is very likely to be good, because it is old and unprotected by copyright. He had Emerson, Thoreau, a John B. Alden edition of Chambers' *Encyclopedia of English Literature,* some Franklin Square editions of standard poets in paper covers, and a few Ruskins and Carlyles—all read to rags. He talked the book English of these authors, mispronouncing many of the hard words, because he had never heard them pronounced by any one except himself, and had no standards of comparison. And he had piles of reports of the secretary of agriculture, college bulletins and publications of the various bureaus of the Department of Agriculture at Washington. In fact, he had a good library of publications which can be obtained gratis, or very cheaply—and he knew their contents. He had a personal philosophy, which while it had cost him the world in which his fellows lived, had given him one of his own, in which he moved as lonely as a cloud, and as untouched of the life about him.

HE seemed superior to the neighbor boys, and felt so; but this feeling was curiously mingled with a sense of degradation. By every test of common life, he was a failure. People despised a man who was so incontestably smarter than they, and yet could do no better with himself than to work in the fields alongside the tramps. Save for his mother and their cow and garden and flock of fowls and their wretched little rented house, he was a tramp himself.

His father had been no better. He had come into the neighborhood from nobody knows where, selling fruit trees, with a wife and baby in his old buggy—and had died suddenly, leaving the baby and widow, and nothing else save the horse and buggy. That horse and buggy were still on the Irwin books represented by Spot the cow—so persistent are the assets of cautious poverty. Mrs. Irwin had labored in kitchen and sewing room until Jim had been able to assume the breadwinner's burden—which he did about the time he finished the curriculum of the Woodruff District school. His duties, his mother, and his father's status as an outcast drove him in upon himself, and, at first, upon his school books which he mastered so easily and quickly as to become the star pupil of the Woodruff District school, and later upon Emerson, Thoreau, Ruskin and the poets, and the agricultural reports and bulletins.

All this degraded—or exalted—him to the position of an intellectual farm-hand, with a sense of superiority and a feeling of degradation. It made Jennie Woodruff's "Humph!" potent to keep him awake that night, and send him to the road work with Colonel Woodruff's team next morning with hot eyes and a hotter heart.

What was he anyhow? And what could he ever be? What was the use of his studies in farming practice, if he was always to be an underling whose sole duty was to carry out the crude ideas of his employers? And what chance was there for a farm-hand to become a farm owner, or even a farm renter, especially if he had a mother to support out of the twenty-five or thirty dollars of his monthly wages? None.

A man might rise in the spirit, but how about rising in the world?

Colonel Woodruff's gray percherons seemed to feel the unrest of their driver, for they fretted and actually executed a clumsy prance as Jim Irwin pulled them up at the end of the turnpike across Bronson's Slew—the said slew being a peat-marsh which annually offered the men of the Woodruff District the opportunity to hold the male equivalent of a sewing circle while working out their road taxes, with much conversational gain, and no great damage to the road.

In fact, Columbus Brown, the pathmaster, prided himself on the Bronson Slew Turnpike as his greatest triumph in road engineering. The work consisted in hauling, dragging and carrying gravel out on the low fill which carried the road across the marsh, and then watching it slowly settle until the next summer.

"Haul gravel from the east gravel bed, Jim," called Columbus Brown from the lowest spot in the middle of the

Continued on page **(444)**

"You marry?" said Jennie, "Humph!"

A Modern Bathroom, $60

The "Pride"

Just one of our wonderful bargains. Set comprises a 4, 4½ or 5 foot iron enameled roll rim bath tub, one 19 inch roll rim enameled flat-back lavatory, and a syphon action, wash-down water closet with porcelain tank and oak post hinge seat; all china index faucets, nickel-plated traps, and all nickel-plated heavy fittings. J.M. SEIDENBERG CO., Inc. 254 W. 34 St. Bet. 7th and 8th Aves. N.Y.C.

Send for Catalog 40

$24.95 Upward American CREAM SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines. Get our plan of easy **MONTHLY PAYMENTS** and handsome free catalog. Whether dairy is large or small, write today.

AMERICAN SEPARATOR CO. Box 7052 Bainbridge, N.Y.

GLADIOLI 36 named bulbs, 6 colors, $1.00; 12 different fancy bulbs, $1.00; GUARANTEED TO BLOSSOM. Get colored catalog. PIERCE BULB CO., WEST MEDWAY, MASS.

STRAWBERRIES: Senators, $5. Chas. I—Abington—Stevens Late—Aroma, $5.50; 80c 100. Superb, $10; $1.50 100. All plants prepaid. F. G. MANGUS, Pulaski, N.Y.

Chicken Lice Vanish In Twenty-Four Hours

Amazing New Discovery Banishes Vermin Like Magic—Makes Fowls Grow and Lay More Eggs

Practical Poultryman Offers $1 For Every Louse You Can Find

Lice, chiggers, fleas, mites, etc., probably steal one-third to one-half of the poultry raiser's profits by sucking the very life blood from the flock. But there is no longer any reason why you should suffer this loss since the perfection of a remarkable new mineral formula by science.

Not only does this wonderful method do away with the bother and trouble of greasing, dusting and spraying, but it practically assures doubling your profits because you get more eggs and fatter broilers.

The Lousy Chicken Loses You Money

With this simple, scientific system you merely drop a few mineral tablets in the fowls' drinking water. The tablets quickly dissolve and within a day or two after the fowls drink the water, the lice, fleas, etc., leave like magic. For instance, J. H. Veach, of Logansport, La., writes "The lice left my flock like a swarm of gnats on a sultry morning," and Fergstrand Bros., the widely known Pennsylvania raisers of pure bred poultry, say they will give a dollar for any louse you can find on their poultry since using Paratabs.

This wonderful mineral compound simply puts elements into the fowls' blood which the lice cannot stand, yet is warranted not to flavor the eggs or meat in any way.

The Healthy, Lice-Free Hen Doubles Your Profits

Lady Jewel, who laid 305 eggs in one year

Over 150,000 poultry raisers have used this formula known as Paratabs with great success. Many say they would not think of doing without it.

Simply address a post card or letter to M. B. Smith, 3326 Coca Cola Bldg., Kansas City, Mo. Don't send any money at all. Mr. Smith will immediately send you two large $1.00 packages (enough for a season) at a special introductory price of only $1.00. Pay the postman only $1.00 and postage. You can easily sell one package to a friend and thus get yours free. Try Paratabs 10 days. If the lice are not all gone, your hens laying more eggs, and strutting around full of life and pep—if for any reason you are not satisfied, simply say so and your money will be returned.

This is a special introductory offer good for only a short time and should be accepted at once, as a big bank says Mr. Smith does as he agrees, furthermore, your money is fully protected by ample bank deposits.

Butter Making Good For Pin Money

Miss Van Rensselaer Recognized—Our Usual Attractive Dress Patterns

FARM women who make butter for private trade as I do, have sometimes been annoyed by having butter cloths returned mildewed, or else not returned at all, or they have heard over the phone just after making butter into rolls according to order, "Oh, Mrs. F., I've got company. Could you spare me a little more butter?" or "Mrs. F., John was away last week, so I've butter left on hand. Just send me two pounds instead of four."

I never could make a nice roll of butter, especially in hot weather. We tried packing it in small crocks, but these get cracked, are not returned promptly and my husband dislikes bothering with them in the auto. So I bought a pound print, the brick shape, and it has solved most of my troubles. It measures an accurate pound, so I need not weigh any more butter. Relief No. 1. I wrap the butter in paper, so no more greasy, mildewed cloths. Relief No. 2. I can add or subtract from a customer's order at a moment's notice without trouble. Relief No. 3. A store in town which refuses to handle country butter will take all the prints I have above my customers' needs. Relief No. 4.

Printing Butter is Real Fun

I have found that butter which is too soft to roll will print nicely. Why, printing butter is almost as much fun as making mud pies used to be!

The paper costs 35c per pound, but can be purchased a trifle cheaper by the thousand sheets. My print cost 35 cents. It has saved my buying a new butter scale. The neat, sanitary butter package has gained me new customers. I have a chance to furnish butter for a smart tea room some twenty miles away, and it will be called for at my door.

I do not have ice, but use water from the well to chill my cream before churning, and I wash my butter with the cold water while it is still in the grain. My customers pay me just what they would have to pay at the store. Most of our stores have a difference of ten cents between wholesale and retail price per pound. Through our butter customers, we have found a market for maple syrup, hams, berries, chickens, and other produce.

My mother bequeathed me some of my customers, but I really dreaded the whole process of butter-making until I learned to use a print. Some day I mean to own a butter worker. Since I salt my butter in the churn after washing it, and in cold weather print it at once almost, I do not dread working it. I moisten the salt, as it seems to go through faster and never grains on the butter. Washing the butter through two waters seems to eliminate the streaks of white that once troubled me.

When Sales Improve

Sales are usually best in summer. Butter is in extra demand during green corn season! I anticipate losing my tea-room customers when the weather becomes unpleasant for motoring. As yet I have never sold butter by parcel post. Our dairy is not model, as the men insist upon some Shorthorn cows in order to stock the farm. I won't churn for Shorthorns alone, so have two registered Jerseys. Sometimes I sell no butter, for "we are seven"; again, I have 20 to 30 pounds per week.

When my dairy becomes model I shall have enough cows so that I may be churning for five the year around. Most of my neighbors sell cream, so I could market my butter among them, but it is more satisfactory to market in town. Some of our stores will take good butter at an extra price and hold it for their best patrons.

Learn to make a superior article, then a very little salesmanship will do the rest.

ONE ON US:

Only a zero—yet it meant just the opposite of "nothing"! When it was accidently dropped from the account of the recent conference of Home Bureau workers in New York, it changed the membership of that splendid organization from 30,104 women to 3,104. Quite a difference there!

Thank you Mrs. Brigden, for pointing it out. We apologize. Next year, we hope we can make it 300,000—and we'll be careful of the O's!

MAYBE YOU LIVE AT THE "HUB"

The "center" of your state is not necessarily the largest city. New York, Philadelphia, Chicago, and many other important cities have had to withdraw from the field, for the United States Coast and Geodetic Survey has been conducting a search for the exact center of each state and in almost all of the forty-eight the country wins out geographically. Only in the District of Columbia, which Washington occupies almost entirely, and in Massachusetts, where Worcester covers that geographic point, are cities the exact center.

In New York, Madison County contains the central point, six miles southeast of Oneida, in New Jersey it is in Mercer County, five miles southeast of the State Capitol. In Pennsylvania, Center County has it, two and one-half miles southwest of Bellefonte.

So, perhaps some American Agriculturist boys or girls may live near these central points, all of which are in farming country. And some may even live in, or have visited South County in Northern Kansas, where the exact center of the United States is found.

WELL-DESERVED RECOGNITION

IN selecting Dr. Martha Van Rensselaer, head of the School of Home Economics, at the State College of Agriculture, Ithaca, as one of the twelve leading American women, the National League of Women Voters recognized the unusual position which Miss Van Rensselaer has achieved during her successful administration of this most unusual school.

Miss Van Rensselaer has perhaps done more than any other woman to popularize the word "home-maker." Indeed she may almost be said to have coined it. With her very capable "partner," Miss Flora E. Rose, and their associates at Ithaca, she has opened the eyes of her generation to the dignity and importance of the home-making profession.

It is an honor, but by no means an unexpected honor, that her name should stand with those of artists, social workers, scientists and writers as America's great exponent of intelligent home-making. We congratulate Miss Van Rensselaer on her appointment and we congratulate New York State on having at the head of the Ithaca school a woman of such broad vision and high accomplishment.

The Brown Mouse

(*Continued from page* 443)

turnpike. "Take Newt here to help load."

Jim smiled his habitual slow, gentle smile at Newton Bronson, his helper. Newton was seventeen, undersized, tobacco-stained, profane and proud of the fact that he had once beaten his way from Des Moines to Faribault on frieght trains. A source of anxiety to his father, and the subject of many predictions that he would come to no good end, Newton was out on the road work because he was likely to be of little use on the farm. Clearly, Newton was on the downward road in a double sense—and yet, Jim Irwin rather liked him.

"The fellers have put up a job on you, Jim," volunteered Newton, as they began filling the wagon with gravel.

"What sort of job?" asked Jim.

"They're nominating you for teacher," replied Newton.

"Since when has the position of teacher been an elective office?" asked Jim.

"Sure, it ain't elective," answered Newton. "But they say that with as many brains as you've got sloshing around loose in the neighborhood, you're a candidate that can break the deadlock in the school board."

(*Continued next week*)

Here is another order for patterns. The Clown Suit was a great success. I used two different colors, red and yellow.—Mrs. B. H. C., New York.

FOR STAY-AT-HOMES OF ALL AGES

SUCH a simple pretty little dress for the growing girl—and one she can grow in, too! This frock could be made in a morning for everyday wear, or with dainty material and ribbon bows, be used for parties and Sunday. **No. 1738** comes in sizes 4, 7, 8 and 10 years. **Price, 12c.**

THE matronly figure looks well in the morning dress of long lines and **No. 1685** is quite ideal both for appearance and comfort. It comes in sizes 36, 38, 40, 42, 44, 46, 48 and 50-inches bust measure and costs **12c.** in stamps. In a medium size, 1685 requires 4 yards of 36-inch material, with 1 yard contrasting and 3 yards binding.

IS it possible to have too many aprons? Not if they are homemade, for that sort wears longer and looks better than any ready-made could. **No. 1637** is cut in sizes 36, 40, 44-inches bust measure. Size 36 requires 2⅜ yards of 36-inch material with 9½ yards of binding. **Price, 12c.**

To Order: Enclose correct amount (preferably stamps). Write name, address and numbers clearly, and send to Fashion Department, American Agriculturist, 461 Fourth Avenue, New York City.

The summer catalogue is ready and from its attractive front cover in colors to the back page, it contains fascinating designs for all the family. Only ten cents! Get one before they are all gone!

The Valley of the Giants

The End of Peter B. Kyne's Popular Serial

BRYCE glanced at his watch. "It's half after eleven," he said. "Guess I'll run up to the Giants and bring him home to luncheon."

He stepped into the Napier and drove away. Buck Ogilvy with sudden determination entered the office.

"Moira," he said abruptly, "your dad is back, and Bryce Cardigan has let him have his old job as woods-boss. And I'm here to announce that you're not going back to the woods to keep house for him. Understand? Now, look here, Moira. I've shilly-shallied around you for months, and I haven't gotten anywhere. To-day I'm going to ask you for the last time. Will you marry me?"

"I'm afraid I don't love you well enough to marry you," Moira pleaded. "I'm truly fond of you, but——"

"The last boat's gone," cried Mr. Ogilvy desperately. "I'm answered. Well, I'll not stick around here much longer, Moira. So I'll quit my job here and go back to my old game of railroading."

"Oh, you wouldn't quit a ten-thousand-dollar job," Moira cried, aghast.

"I'd quit a million-dollar job. I'm desperate enough to go over to the mill and pick a fight with the big band-saw."

"But I don't want you to go, Mr. Ogilvy."

"Call me Buck," he commanded sharply.

"I don't want you to go, Buck," she repeated meekly. "I shall feel guilty, driving you out of a fine position."

"Then marry me and I'll stay."

"But suppose I don't love you the way you deserve——"

"Suppose!" Buck Ogilvy cried. "You're no longer certain of yourself. How dare you deny your love for me? Eh? Moira, I'll risk it."

Her eyes turned to him timidly, and for the first time he saw in their smoky depths a lambent flame. "I don't know," she quavered, "and it's a big responsibility in case——"

"Oh, the devil take the case!" he cried rapturously, and took her hands in his. "Do I improve with age, dear Moira?" he asked with boyish eagerness; then, before she could answer, he swept on, a tornado of love and pleading. And presently Moira was in his arms, and he was kissing her, and she was crying softly because—well, she wondered, and as she wondered, a quiet joy thrilled her in the knowledge that it did not seem at all impossible for her to grow, in time, absurdly fond of this wholesome red rascal.

"Oh, Buck, dear," she whispered, "I don't know, but perhaps I've loved you a little bit for a long time."

JOHN CARDIGAN was seated in his lumberjack's easy-chair as his son approached. His hat lay aside him; his chin was sunk on his breast, and his head was held a little to one side in a listening attitude; a vagrant little breeze rustled gently his fine, white hair. Bryce stooped over and shook him gently by the shoulder.

"Wake up, partner," he called cheerfully. But John Cardigan did not wake, and again his son shook him.

The old eyes opened, and John Cardigan smiled up at his boy. "Good son," he whispered. He closed his sightless eyes again. "I've been sitting here—waiting," he went on in the same gentle whisper. "No, not waiting for you, boy—waiting——"

His head fell over on his son's shoulder; his hand went groping for Bryce's. "Listen," he continued. "Can't you hear it—the Silence? I'll wait for you here, my son. Mother and I will wait together now. Look after old Mac and Moira—and Bill Dandy, who lost his leg—and—all the others, son. Sorry I can't wait to see the San Hedrin opened up, but—I've lived my life and loved my love. Ah, yes, I've been happy—just doing things—and—dreaming here among my Giants—and——"

He sighed gently. "Good son," he whispered again; his big body relaxed, and the great heart of the Argonaut was still. Bryce held him until the realization came to him that his father was no more.

"Good-bye, old John-partner!" he murmured. "You've escaped into the light at last. We'll go home together now, but we'll come back again."

And with his father's body in his strong arms he departed from the little amphitheatre, walking lightly down the old skid-road to the waiting automobile. And two days later John Cardigan returned to rest forever with his lost mate among the Giants, himself at last an infinitesimal portion of that tremendous silence that is the diapason of the ages.

WHEN the funeral was over, Shirley and Bryce lingered until they found themselves alone beside the freshly turned earth. Through a rift in the great branches two hundred feet above, a patch of cerulean sky showed faintly; the sunlight fell like a broad golden shaft over the blossom-laden grave, and from the brown trunk of an adjacent tree a gray squirrel, a descendant, perhaps, of the gray squirrel that had been wont to rob Bryce's pockets of pine-nuts twenty years before, chirped at them inquiringly.

"He was a giant among men," said Bryce presently. "What a fitting place for him to lie!" He passed his arm around his wife's shoulders and drew her to him. "You made it possible, sweetheart."

She gazed up at him in adoration. And presently they left the Valley of the Giants to face the world together, strong in their faith to live their lives and love their loves, to dream their dreams and perchance when life should be done with and the hour of rest at hand, to surrender, sustained and comforted by the knowledge that those dreams had come true.

LIVING WITH OUR CHILDREN

IN choosing toys for your children, or in teaching them games, remember the following age-classifications:

1-3 years, toys and games to develop muscles and senses.
3-6 years, to develop imagination.
6-11 years, to develop self-confidence.
11-16 years, to develop loyalty and fair play.

Toys to children are what tools are to grown men. They learn to use them and through the tools to use their own bodies and minds. Thought as to the right choice of toys is not time wasted on childish foolishness, but is constructive building for the man who will some day take his place in the community life.

Get the child's point of view; respect his tastes and property as you expect him to respect yours. Above all, play with him—not condescendingly, or half-heartedly, but in the true spirit of Froebel's great appeal "Come let us live with our children."

BUYING "ON TIME"

From personal experience we have learned the advantage of installment-plan buying. When one's income is small it often means that a much-needed article for the home must be gone without for a long time while the price is slowly saved. However, by choosing a good, reliable firm to deal with, in your home town or not, as you prefer, the desired goods may be purchased and paid for in monthly installments. Besides the advantage of possessing the article, there is the satisfaction of establishing one's credit.

If a reliable concern is chosen for your dealings, and you pay your installments promptly, there is no reason why you should not be one of those who benefit by this practical method of furnishing your home.

Like other things, moderation is the principle which makes "buying on time" successful. It is the abuse of the credit privilege instead of its use that has spoiled it for many people.—M. R.

Post Toasties
improved CORN FLAKES

SERVE these golden flakes of toasted corn with cream or milk, and appetite says, "That's it!" No bother to prepare, no cooking—always *ready*, and *delightful*. A serving usually costs less than a cent.

There's nothing like these crisp, flavory flakes of toasted corn to charm the taste. There's energy-building nourishment in their goodness, too. Make sure you get Post Toasties—in the Yellow and Red package—worth asking for by name.

Post Toasties
—Improved CORN FLAKES

Made by Postum Cereal Co., Inc.;
Battle Creek, Mich.

Only $2 DOWN ONE YEAR TO PAY

$44 Buys the New Butterfly Jr. No. 2½ Light running, easy cleaning, close skimming, durable. Separators are guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here; sold on

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and on a plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money. (1)

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12 Months to Pay

Earn money for the small payments. Parents often advance first payment to help buy a RANGER 44 styles, colors and sizes. Factory to Rider prices. Delivered FREE, express prepaid, for 30 DAYS TRIAL. Terms to suit—cash or easy payments.

Tires lamps, wheels, and equipment at half usual prices.

SEND NO MONEY. Write today for big, Free Ranger Catalog and marvelous prices.

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Soap and Ointment to clear Dandruff and itching, 25c. each. Samples free of Cuticura, Dept. U, Malden, Mass.

ARECO BLEND COFFEE 32¢ lb

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Reviewing the Latest Eastern Markets and Prices

BROILER MARKET GOOD

HERSCHEL H. JONES

THE demand continues active for spring broilers especially express shipments from nearby sections. There is an increasing proportion of broilers among the freight shipments of live poultry from the West, but the total supplies have not been so far in excess of demand. The fanciest large colored live broilers still bring 60c; average colored, 50 @ 55c; White Leghorn, large, 50c; white leghorn, average 40 @ 45c.

The demand for broilers for the Memorial Day holiday will be greater as this is one of the best periods of the year for marketing broilers. The small size broilers of 1 lb. and under sell at a decided discount and are in limited demand. The choice being for fancy large stock of 2 lbs. and over each.

There is little demand at present for heavy fowls. Ducks and geese are neglected except the Long Island spring ducks which have been selling in large quantities at 29 to 30c.

EGG MARKET WEAKER

Although top quotations for extra fancy hennery white eggs were about the same on Thursday of last week the general condition of the market, especially on average quality of nearby eggs was weaker. The supply of nearby white eggs was very plentiful and they moved slowly. The bulk of the nearby eggs sold at prices ranging from 30 to 33c with probably a larger proportion at around 30 @ 31c. Even at these prices trading was not particularly active.

Many egg shippers have asked the question recently as to why their returns are much lower than quotations, also as to why the New Jersey hennery white eggs would be quoted so much higher than other nearby hennery whites. This situation is due to the fact that a certain limited fastidious trade is willing to pay higher prices for their regular supply of fancy, selected eggs which they can buy without shopping around and taking any risk as to quality. The New Jersey extras bring higher prices because the eggs covered by the top quotation are selected to a uniform large size, perfect cleanliness, chalk white color, new laid quality and light colored yolks. Furthermore these eggs are in the market in sufficient quantities to provide a continuous source of supply under brands of reliable character all during the year and dealers become familiar with them and can fill their needs without spending time in picking out cases here and there around in the market.

Most of the nearby white eggs reach the market in small lots of irregular quality and lacking in the careful selection required by the more particular buyers. Even occasional lots that are of exceptional quality are not of this quality and are not on the market continuously.

When the market is heavily supplied with irregular qualities of eggs as at present, dealers must find other outlets than their regular trade for immediate consumption and whenever it becomes necessary to sell to buyers who candle and repack for storage, concessions must be made to make it worth while for the speculative buyer. Such buyers will buy in lots of 100 or 200 at a time at a round price which may be more than the value of some of the eggs and less than the value of others.

The highest prices are paid only for eggs which are very closely selected out of fairly large production and this selection involves expense in both labor and rejections. Quotations at best are merely an attempt to represent the market and report on a general way in which sales are made. The fact that eggs of a given quality are quoted at a given price does not mean that they can on that day be sold in unlimited quantities at that price.

Buyers for storage are much more conservative this year than last, because of the heavy loss last year due to the excess supplies in storage. It is to be expected that the quantities of eggs put into storage this year will be less than last year unless prices drop to very much lower level. On May 10, there were reported on hand in the four largest markets of the country 2,023,240 of eggs compared with 2,835,961 at this time last year. The total receipts of eggs at New York last week were approximately the same as the previous week and considerable in excess of the receipts in the corresponding week last year.

BUTTER MARKET STRONGER

Creamery butter advanced still higher last week by ¾c on high score and ¼c on extras, 92 score. The receipts up to and including Thursday last week were about 5,000 packages short of the previous week which reduced the supply below the consumptive requirements and made it necessary to draw on the very moderate reserve stocks. This caused a very active and strong market for all fresh receipts with trading mostly at 44c per lb. for creamery extras and a few favorite brands selling at a fraction above 44c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on May 10:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	38@41	......	......
Other hennery whites, extras	35@36	......	......
Extra firsts	32@34	30@31	28½
Firsts	30@31	......	27
Gathered, whites, first to extra firsts	30@34	......	......
Lower grades	28@29	......	......
Hennery browns, extras	33@35	......	......
Gathered browns and mixed colors, extras	29@32	29@30	......
Pullets No. 1	29@30	......	......
Butter (cents per pound)			
Creamery (salted) high score	44½@45	46@47	......
Extra (92 score)	44	44@45	44
State dairy (salted), finest	43½	42@43	......
Good to prime	42½@43	34@40	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$23@26	$20@21	$21@22
Timothy No. 3	20@23	......	19@20
Timothy Sample	13@16	......	......
Fancy light clover mixed	26@27	......	21@22
Alfalfa, second cutting	27@29	......	......
Oat straw No. 1	11	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	27@28	26@28	28@29
Fowls, leghorns and poor	22@24	24@25	......
Chickens, leghorns	......	......	25@26
Roosters	14	17@18	16@18
Live Stock (cents per pound)			
Calves, good to medium	9 @11½	9 @10½	......
Bulls, common to good	4 @ 4¾	4½@ 5¼	......
Lambs, common to good	9 @12	11 @13½	......
Sheep, common to good ewes	3½@ 5½	7 @ 8	......
Hogs, Yorkers	8 @8½	8½@ 8¾	......

Continued cold weather has delayed expected increase in butter production. Shipments are coming in from the West by express and two cars of Canadian were due the end of the week. Some additional Danish butter is expected this week. In general it may be said that the butter market is in a very healthy condition and promises to continue so. There was an extreme shortage of unsalted butter last week and premiums as high as 6 @ 7c above quotations were paid in some instances.

CHEESE PRICES STEADY

In spite of an increase in receipts of cheese last week, the prices continued steady, with an average run: State whole milk flats, fresh, selling at 22c per lb. A considerable increase in production last week was reported in Wisconsin and it is expected that Wisconsin primary market prices will decline somewhat in the next few days. The cold storage season has hardly begun as yet and the market continues in very healthy condition.

DRIED APPLES NOT ACTIVE

There is practically no market for dried apples at New York just now. Prime apples for early shipment are being held, up-State at about 9¼ to 9½c lb. f. o. b. Prices quoted New York: Prime, 9½ @ 10¼c; choice, 10¾ @ 11¼c; fancy, 11¾ @ 12¼c lb.

POTATO MARKET QUIET

Receipts of old potatoes in the New York freight yards were relatively light last week, but the demand fell off considerably. Consequently prices were low and the movement dull. States sold at from $2.75 per 150-lb. sack for the best, to as low as $2 for poorest in the wholesale markets.

Because of the inferior quality of most old potatoes, the buyers are turning their attention to new and these are selling from $7 to $7.25 per bbl. on the dock.

Potatoes from the West are coming in sprouted, spongy and some are showing rot. Stock of this kind has a bad effect on prices and tends to keep them low. Furthermore, the stock in storage is larger than at any time this season.

The total carlot shipments of the 1922 crop up to May 5 were 234,279 cars, compared with total of 226,651 up to May 6 last year, and a total of 238,288 for all of last season. Apparently the carlot shipments by the end of this season will exceed by quite a large figure the total shipments of last year.

HAY PRICES STEADY

Top grades of hay in the New York markets held steady last week, but toward the close of the week there was a tendency toward lower prices. Staples were buying only from hand to mouth. Shipments were increasing as a result of issuing of new permits, but no hay was received by boat. Prices at Brooklyn terminals were $1 lower than at Manhattan on top grades and $2 lower per ton on lower grades.

LIVE CALVES ADVANCE

At the end of last week there was a stronger demand for live calves and the wholesale price advanced $1 per cwt., making the top quotations on prime veal, live, $13.50. Medium to good sold at 8 to 11c and culls 6 to 8c per lb. The market was stronger for lambs, State spring lambs of best quality bringing 14 to 17c per lb.; medium to good, clipped, 11 to 14c; fair, 10c, and culls, 8 to 10c. Hogs were weak, Yorkers selling $8.50 to $8.80 on May 11.

DRESSED CALVES DULL

Trade was slow on country dressed calves last week and prices were barely steady, except for finest veals which are scarce and sell readily. Wholesale prices of dressed calves during the week held at around the following per lb.; choice, 16 @ 17c, prime, 13 @ 15c, good, 10 @ 12c, common, 6 @ 9c. Very few sales above 16c.

Dressed lamb receipts were light and sold slowly at range of $3 @ $9 each, with a few heavy at $9.50 to $10. Dressed sheep sold at a variety of prices not exceeding $4 each.

MAPLE SYRUP SELLS SLOWLY

In the New York wholesale markets there was very little selling of maple syrup shipped on consignment last week. Prices on pure maple in gallon cans, wholesale, varied from $1.90 to $2.35, but trade quotation was $2 per gallon. Supply of maple sugar light, quoted in lb. cakes at 25 to 30c. Quantities of very dark poor-quality sugar from Vermont and Canada have been sold at around 20c lb. in blocks and sacks. Uniform quality dark sugar made from filtered syrup and not burnt will bring from 21 to 24c lb., depending on volume of sales and purity.

FURTHER DECLINE IN FEEDS

With the exception of gluten feed, which advanced slightly, there were further declines in most feedstuffs last week. Trading was limited. Wholesale quotations on carlots, in 100-lb. sacks, Buffalo rate basis, per ton on May 10, were:

Gluten feed, $41.05; cottonseed meal, $44.80; oil meal, $39; standard spring bran, $34; hard winter bran, $34.50; standard spring middlings, $34.50; choice flour middlings, $37; white hominy, $35.80. Feed grains per bushel, No. 2 yellow corn, 92c; No. 2 white oats, 53¼c; No. 3 white oats, 51¾c; barley feed, 74 @ 78c; No. 2 rye, 89c.

CASH GRAINS AT NEW YORK

Cash grain quotations May 11 at New York were as follows:

Wheat, No. 2 $1.47; No. 2 hard winter, $1.33½; corn, No. 2 yellow, $1.00¼; No. 2 mixed, 99¾; oats, No. 2 white, 55½ @ 56c; No. 3 white, 54 @ 54½c; rye, c. i. f. export, 90c.

Chicago—No. 2 white corn, 81¼ @ 81½c; No. 2 yellow corn, 82 @ 82¼c; oats, No. 2 white, 46½ @ 47c; No. 3 white, 45½ @ 47c; rye, 77½ @ 77¾c; barley, 65 @ 68c.

SHIP YOUR EGGS
WHITE AND BROWN
To R. BRENNER & SONS
Bonded Commission Merchants
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Brown and White Eggs
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Established 1867

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If you have HAY and STRAW to sell write us for quotations and free Booklet "How to market Hay and Straw."
JOHN E. MURRAY, Inc.
1658 BROADWAY, NEW YORK CITY, N.Y.

SHIP to the right house
M. ROTH & CO.
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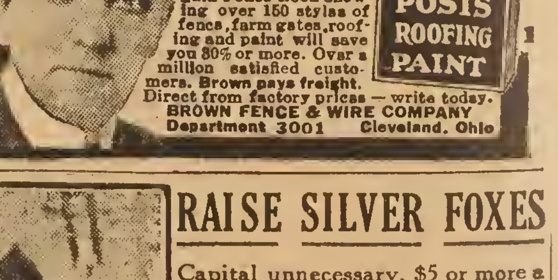
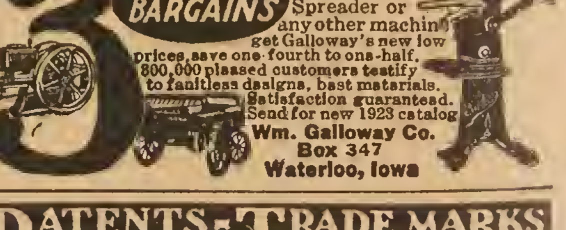
Write for shipping Tags
EGGS



RAISE SILVER FOXES
Capital unnecessary. $5 or more a month will give you some highest-quality breeders. Investigate NOW our plan of unequaled co-operation.
SILVERPLUME FOXES, Inc.
Box B-37, Keeseville, N. Y.



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A comprehensive, experienced, prompt service for the protection and development of your ideas. Booklet of information, advice and form for disclosing idea, free on request. RICHARD B. OWEN, 94 OWEN BUILDING, WASHINGTON, D. C.

BINDER TWINE
Granges and Farm Bureaus get our low prices. Farmer Agents wanted. Sample free.
THEO. BURT & SONS, Box 70, MELROSE, OHIO

MOSS'S CHICKS

BEST IN THE WORLD

This season has proven to be the biggest season in our history. An outstanding factor is the great number of reorders from customers of past years, which speaks most convincingly of our High Quality and Superior Service.

You will receive the Healthiest, most robust chicks produced, for that is the kind we are famous for throughout the country. If you want fall layers order now, we are still in a position to ship immediately.

PURE BRED BABY CHICKS

Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
Leghorns - Buff and Brown - Barred Rocks	$4.50	$8.50	$17.00
S. C. & R. C. R. I. Reds	$4.75	$9.00	$18.00
White Wyandottes - White Rocks - Buff Rocks - Anconas	$5.00	$10.00	$19.00
Black Minorcas - Buff Orpingtons - White Orpingtons	$5.50	$10.50	$21.00
Mixed Chicks or Broilers	$3.75	$6.75	$13.00
Light Brahmas	$8.75	$16.50	$30.00
Famous MOSS'S Jersey Black Giants	$11.00	$21.00	$40.00

June, July and August chicks 1 cent lower. By 500 or 1,000 of one variety, special discount allowed.

Hatching Eggs and Stock.—Whether your order is large or small, it will have the same careful attention. *Catalogue on request.* **Immediate Delivery**

ANTHONY H. MOSS, Morris Plains, New Jersey

Strickler's Quality Chicks

Hatches May 30, June 4-11-18-25

Large, heavy-type Barron English S. C. White Leghorns of superlative quality mated to pedigreed cockerels. Each pen headed by Lady Storrs' Pen Cockerel (Dams' records of 240 to 271 eggs each in pullet year). Highest quality vigorous chicks by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. $10 per 100, $18 per 500, $95 per 1,000. Also husky puro-bred Barred Rock chicks, $12 per 100, $57 per 500.

LEONARD F. STRICKLER, Sheridan, Pa.

BABY CHICKS

From 200-Egg Hens

Chicks from winter laying, farm raised, mature stock S. C. W. Leghorns, R. I. Reds, Barred Rocks, White Orpingtons, Anconas, Black Jersey Giants, White Indian Runner Ducks, $13 per 100 up. Live delivery guaranteed. Parcel Post prepaid. Hatching eggs, $8.00 per 100. Belgian Hares and New Zealand Reds. Circular free.

Glen Rock Nursery & Stock Farm

Ridgewood, N. J.

CHICKS for June and July Delivery

Our 19th Season producing good strong chicks from heavy-laying strains. S. C. White and Brown Leghorns, $9.50 per 100; Buff and Black Leghorns, $10 per 100; Barred and White Rocks, $12 per 100; Anconas, Black Minorcas, $11.50 per 100; White Wyandottes, R. C. Reds, $13 per 100. Mixed, $8.50 per 100. Order direct from this ad. We guarantee 95% live delivery. Catalogue free.

20th CENTURY HATCHERY

Box R New Washington, Ohio

CHICKS WITH PEP, $11 Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off.

Free catalog. Member I. B. C. A.

HOLGATE HATCHERY, Box A, Holgate, Ohio

750,000 CHICKS

$9.00 PER 100 AND UP. From Hogan-tested, well-kept, heavy-laying flocks. WH., BR., AND BUFF LEGHORNS, ANCONAS, 100, $11; 300, $32; 500, $52. BARRED ROCKS, REDS AND MINORCAS, 100, $13; 300, $38; 500, $62. BUFF ORPINGTONS, WHITE ROCKS AND WHITE WYAN., 100, $15 straight. Mixed Chicks, 100, $9 straight. Postpaid, full live delivery guaranteed. Order right from this ad. Free Catalog. Reference, 4 Banks.

TRI-STATE HATCHERIES, Box 510, ARCHBOLD, OHIO

Summer Prices of BABY CHICKS *for delivery after June 15th*

White, Brown and Buff Leghorns, Anconas and Black Minorcas . . } 10c. each

Barred and White Rocks, R. I. Reds, White Wyandottes and Buff Orpingtons } 13c. each

Assorted Varieties . . . . . 9c. each

For prompt shipments make first, second and third choice. If we should be short on one variety could fill on another. We send by parcel post prepaid. 90 per cent live delivery guaranteed. Order direct from this ad or send for price list.

THE LANTZ HATCHERY Established 1906 TIFFIN, OHIO

CHICKS CUT PRICES

That are better, stronger, with plenty of "pep"; chicks easier to raise. That's the kind you have been looking for; that's the kind our system produces. It will pay you to learn how it is done. Write today for free new Bulletin C. ELDEN E. COOLEY, FRENCHTOWN, N. J.

TIFFANY'S SUPERIOR CHICKS THAT LIVE

Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds

Pekin, Rouen and Indian Runner DUCKLINGS

ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

Hampton's Black Leghorn Chicks

Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.

A. E. HAMPTON, Box A Pittstown, N. J.

TOM BARRON S. C. W. LEGHORN

THE WORLD'S BEST LAYERS. BABY CHICKS.

DAVID M. HAMMOND, CORTLAND, N. Y.

White Leghorn Baby Chicks and EGGS from high record breeders on range; proven winter egg producers. Our chicks live and do so at a profit. YARMOND POULTRY FARM, Vanderburg, N. J.

LARGE STOCK fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Collies, Pigeons, Chicks, Stock, Eggs, low; catalog. PIONEER FARMS, Telford, Pennsylvania.

30,000 Chicks weekly

Hatches due June 5, 12, 19 and 26

June, July and Aug.

Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:

S. C. White and Brown Leghorns.....10c each
Barred Rocks.....12c each
S. C. R. I. Reds and S. C. Black Minorcas.14c each
R. C. White Wyandottes.....14c each
Broiler Chicks (Heavy Breeds).....9c each
Broiler Chicks (Light Breeds).....8c each

Lots of 500.....½ cent per chick less
Lots of 1000.....1 cent per chick less

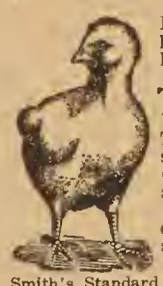
100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.

FINE CATALOG FREE

THE KEYSTONE HATCHERY - Richfield, Pa.

Members I. B. C. Association

BABY CHICKS



Hatching every day in the week and every hour in the day. We are the world's largest producers.

THREE MILLION FOR 1923

Twelve popular breeds of best thorobred stock obtainable, moderately priced; also QUALITY chicks from heavy laying stock at small additional cost.

We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

Smith's Standard Reg. U.S. Pat. Off.

THE SMITH STANDARD COMPANY

Boston, Mass., Dept. 67.....184 Friend Street
Philadelphia, Pa., Dept. 67.....833 Locust Street
Cleveland, Ohio.....1967 West 74th Street
Chicago, Ill., Dept. 67.....427 So. Dearborn Street

(Member International Baby Chick Association)

BABY CHICKS

The big, fluffy, lively kind—THE KIND THAT LIVE AND GROW—FROM PERSONALLY SUPERVISED and CULLED FREE RANGE FARM FLOCKS of heavy laying strains produced in one of the most modern hatcheries in the country.

BARRED and WHITE ROCKS, REDS, ANCONAS, MINORCAS, 50, $8; 100, $15; 500, $72.50. BUFF ORPINGTONS and WHITE WYANDOTTES, 50, $8.50; 100, $16; 500, $77.50. WHITE and BROWN LEGHORNS, 50, $6.50; 100, $12; 500, $60. Postpaid and full live delivery guaranteed. Bank Reference. Order NOW direct from this ad and get them when you want them. Free circular. NORWALK CHICK HATCHERY, Box B6, Norwalk, Ohio. Only 15 hours from New York City.

BABY CHICKS

Price List	Prepaid to you	Pure bred Stock 100	50	25
White and Brown Leghorns		$10.00	$5.50	$3.00
Buff and Black Leghorns		10.00	5.50	3.00
Anconas		11.00	6.00	3.25
Rhode Island Reds		11.50	6.25	3.50
Barred Rocks		11.50	6.25	3.50
Single Comb Black Minorcas		13.00	7.00	3.75
Buff and White Rocks		13.00	7.00	3.75
White and Silver Laced Wyandottes		14.00	7.50	4.00
Buff Orpingtons		14.00	7.50	4.00
Black Langshans		15.00	8.00	4.25
Light Brahmas		19.00	10.00	5.25

All absolutely first class, purs bred stock. Prompt shipments made. Mail orders to

J. KREJCI, 2165 East 86th Street, Cleveland, Ohio

BABY CHICKS

Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

QUALITY HATCHERY, Box B, Zeeland, Mich.

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

TRY US AND BE SATISFIED

RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

Order June Chicks Now *at these Rock Bottom Prices*

	25 Chicks	50 Chicks	100 Chicks
S. C. W. Leghorns	$3.25	$5.00	$10.00
Barred Rocks	4.00	7.00	14.00
R. I. Reds	4.00	7.00	14.00

500 chicks one-half cent per chick less. Every chick guaranteed from healthy, vigorous free range stock. Post paid. Safe delivery guaranteed.

BROOKSIDE POULTRY FARM

E. C. BROWN, Prop. SERGEANTSVILLE, N. J.

QUALITY BABY CHICKS

Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

C. M. LORGENECKER, Box 40, Elizabethtown, Pa.

PROFITABLE, VIGOROUS CHICKS

IMMEDIATE DELIVERY. PREPAID LIVE ARRIVAL

Bar. Rock, $16 per 100; $150 per 1,000. R. I. Red, $17 per 100; $165 per 1,000. Brown Leghorn, $15 per 100. After May 10th, Barron S. C. White Leghorn, $14 per 100; $130 per 1,000.

HUMMER'S POULTRY FARM. Frenchtown, N. J. R. No. 1

TOM BARRON PEDIGREE STRAIN

S. C. W. Leghorns exclusively. Extra fine large May Chicks $18 per hundred. June Chicks $15 Free delivery and satisfaction guaranteed. FEEK'S WHITE LEGHORN FARM, CLYDE, NEW YORK

Free Catalog Land and Water Fowl, Chickens, Ducks, Geese, Turkeys, Guineas, Rabbits, Pigeons, Dogs, Stock and Eggs.

HOME STOCK FARM, SELLERSVILLE, PA.

DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.

WAYNE DUCK FARM & HATCHERY, Clyde, N. Y.

HILLPOT

QUALITY CHICKS

Real Bargains in Quality Chicks

When you consider value—quality chick value—here's a price list on unsurpassed Hillpot Quality Chicks that shows the most economical and profitable investment you can make.

	25	50	100	500	1000
White, Black or Brown Leghorns	$4.00	$7.50	$15.00	$72.50	$140.00
Barred Rocks	4.75	9.00	17.00	82.50	160.00
Rhode Island Reds	5.00	9.50	18.00	87.50	170.00
White Rocks or Anconas	5.25	10.00	19.00	92.50	180.00
Wh. Wyandottes or Blk. Minorcas	6.75	12.75	25.00	122.50	- - -
Mixed Chicks	3.50	6.50	12.00	57.50	- - -
SPECIAL MATING					
Mating A White Leghorns	6.75	12.75	25.00	- - -	- - -
Mating B White Leghorns	5.50	10.50	20.00	95.00	185.00
Barred Rocks	6.00	11.00	22.00	105.00	190.00

Order now—best paying layers are quickly developed from sturdy, Hillpot quality May chicks. Send money order, check or registered letter. Chicks shipped parcel post with safe arrival of full count guaranteed anywhere in U. S. A. east of Mississippi River.

W. F. HILLPOT, Box 29, Frenchtown, N. J.

Member International Baby Chick Association Life Member American Poultry Association

JERSEY BLACK GIANTS

Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

PICTURESQUE POULTRY FARM, Box 71, Trenton Junction, New Jersey

BUY HUBER'S RELIABLE CHICKS

Special Summer Prices After June 1st

Don't fail to take advantage of these prices, for they will include our number one grade chicks. Our stock is bred for quality and heavy egg production. They will be money-makers. Will ship any number of chicks from 25 on up.

S. C. White and Brown Leghorns and odds and ends at 10 cents. S. C. Anconas at 11 cents. R. C. and S. C. Reds and Barred Rocks, 13 cents. S. C. Buff Orpingtons and White Wyandottes at 15 cents. S. C. Black Minorcas at 14 cents. S. C. Buff Minorcas at 20 cents.

40,000 Chicks Every Week. Order Direct from This Ad. Attractive Catalog Free.

HUBER'S RELIABLE HATCHERY, North High St., FOSTORIA, OHIO

SINGLE COMB WHITE LEGHORNS

C-ertified by the N. Y. S. Co-Op. Poultry Cert. Asso.
H-usky, by coming from free range vigorous stock.
I-mproved by careful selection and good breeding.
C-hicks, which come from high productive stock.
K-eep records up to the standard of their parents.
S-trong, coming from stock of high constitutional vigor.

It pays to keep utility stock which give the best production of the highest-class eggs. Breeding pens contain our blue ribboners from the New York State Production Show. Let me quote you prices on the Genesee Valley Strain of S. C. White Leghorns. Write for circular, stating your requirements and shipping dates preferred.

L. H. ROBINSON, Genesee Valley Poultry Farm, Box 200, CASTILE, N. Y.

ATHENEON CHICKS REDUCED

12,000 per week hatched from healthy, vigorous, pure-bred, culled farm flocks—the kind that are easy to raise—live, lay and pay. Our customers re-order. There is a reason.

VARIETIES	Prices on 50	100	300	500
S. C. White and Brown Leghorns	$5.50	$10	$29	$48
S. C. Black and R. C. Brown Leghorns	6.00	11	32	53
Barred and White Rocks, R. C. Reds, Anconas	6.50	12	35	58
S. C. Reds	7.00	13	38	63
White Wyandottes and Buff Rocks	7.50	14	41	68
Silver Wyandottes and Black Minorcas	8.00	15	44	75
Odds and Ends, Heavy Breeds	5.50	10	29	48
Odds and Ends, Light Breeds	5.00	9	27	45

July prices the same. Last hatch July 16th. Mail your order now direct from this ad. Send check, money order, or registered letter. No shipments C. O. D. Full count and live delivery guaranteed. Parcel Post prepaid. Reference: Athens National Bank. ATHENS CHICK HATCHERY, Box Y, ATHENS, OHIO.

SUNBEAM HATCHERY

The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, growthy Chicks which will mean PROFIT to my customers. PRICES: WHITE, BROWN & BUFF LEGHORNS, 50, $7.; 100, $13.; 500, $62.50. BARRED ROCKS, R. & S. C. REDS & ANCONAS, 50, $8.; 100, $15.; 500, $72.50. WHITE & BUFF ROCKS, WHITE WYANDOTTES, & B. MINORCAS, 50, $8.50; 100, $16.; 500, $77.50. WHITE & BUFF ORPINGTONS SIL. L. WYANDOTTES, 50, $9.; 100, $18.; 500, $87.50. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them.

BANK REFERENCE CATALOGUE FREE

H. B. TIPPIN, Box F, FINDLAY, OHIO Member I. B. C. A.

CHICKS $10 per 100 and Up

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

VARIETIES	Prices on— 50	100	300	500	1,000
White, Brown and Buff Leghorns	$7	$13	$38	$62	$120
Barred Rocks, Black Minorcas, Anconas and Reds	$8	$15	$44	$72	$140
White Rocks and White Wyandottes	$8.50	$16	$46	$75	$145

Buff Minorcas 50, $13; 100, $25. Mixed Chicks for Broilers, 50, $6; 100, $11; 500, $50. Postpaid. Full live delivery guaranteed. Hatched in the best possible manner from good, vigorous, pure-bred, heavy laying flocks on free range. Carefully selected and packed to go safely. No Catalog. Order right from this ad with full remittance and save time. Reference, Citizens' Savings Bank. You take no chances. THE EAGLE NEST HATCHERY, Box F, Upper Sandusky, Ohio. Only 18 hours from New York City.

BABY CHICKS

We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

E. P. GRAY, Box 90, Savona, N. Y.

BABY CHICKS

Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 14c. each; White Wyandottes, 15c. each; White, Brown, Buff Leghorns, 12c. each; broilers, 8c. each. Pekin Ducklings, 30c. each. Safe delivery guaranteed by prepaid parcel post

NUNDA POULTRY FARM NUNDA, N. Y.

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens

White, Brown, and Buff Leghorns, 50, $5.50; 100, $10; 500, $48. Barred Rocks, Reds, Anconas, 50, $6.50; 100, $12; 500, $58. White Rocks, White Wyandottes, Buff Orpingtons, 50, $7; 100, $13; 500, $63. Silver Wyandottes, 50, $7.50; 100, $14; 500, $70.

Postpaid. Live arrival guaranteed. Bank reference. Order direct from this ad. FREE CIRCULAR.

MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

CHICKS

PEDIGREED, EXHIBITION & SELECT GRADES from 40 breeds, heavy layers. 4 kinds of ducklings. Postage PAID. Live arrival guaranteed. Our Hatcheries EAST & WEST from which to ship. A month's Feed FREE. Big Catalog Free. Stamps appreciated.

NAROB HATCHERIES, Box A5 Gambier, Ohio

OUR AGENTS
MAKE GOOD MONEY

As a member of one of our sales organizations, now being established in several states, you will have an unusual opportunity for making money.

Every farmer needs lightning rods to protect his property; and R. H. Co. Rods have been giving perfect lightning protection for 74 years. They have the official approval of the U. S. Department of Agriculture and the Underwriters' Laboratories.

Previous selling experience not necessary—only a good head for business and a willingness to throw yourself whole-heartedly into the work. Most of our men make $200 to $250 per month right at the start, as we back them up with advertising; show them how to close prospects, and cooperate in every way.

If you want to establish yourself in a substantial business of your own, requiring only small capital, write us today for terms on exclusive territory and full particulars.

The Reyburn Hunter Foy Co.
825 Broadway **Cincinnati, Ohio**

Giants in Strength

When you build a new silo or rebuild your old one, make it a Craine—the strongest as well as handsomest silo made.

Its three wall construction gives perfect silage protection. Outside the wall of upright staves is an air-tight, water-proof, frost-defying inner wall of Silafelt. Outside of both is the spiral Crainelox covering, of giant strength—no hoops, lugs, weak spots, repairs, but permanent protection for every inch of wall.

You can rebuild an old stave silo into a Craine, at half the cost of a new silo.

Write for beautifully illustrated catalog and special discount on early orders. Agents wanted.

CRAINE SILO CO., Inc.
Box 120 Norwich, N.Y.

McCormick-Deering Primrose
BALL-BEARING
Cream Separators

PRIMROSE Cream Separators have been making a good name for themselves in all the dairying sections of the country. Their good work is usually taken for granted, but if you will turn in wherever you see the sign "Primrose Cream Separator Used on This Farm," and make inquiries, you will find liberal praise for the Primrose. Everywhere is proof of close skimming, long wear, and easy operation. Read this evidence:

Mr. C. W. Coon, Colesburg, Ia., Feb. 26, 1923.
McCormick-Deering Dealer, Colesburg, Ia.

Dear Sir:—You will no doubt be interested in knowing about the Primrose Cream Separator which you sold me 5 years ago and is today giving such splendid satisfaction.

I just returned from the Colesburg creamery and was told that my cream test was the highest in a year's average over the 300 other patrons bringing their cream to this station. The cream test averaged 44% during the year 1922 which is 3% higher than the next highest average test.

At the same time our skimmilk test was less than 1-100 of 1%, so we were sure that the Primrose was getting all the cream.

The repair expense on this Primrose separator has been only $1.50. Anybody looking for a close-skimming, economical cream separator does well to buy a Primrose—for it's a machine that can't be beat. Yours very truly, [Signed] J. W. Platt & Son.

¶ At Custer, Michigan recently the dealer held a Primrose Service Day and had a factory expert on hand to give whatever help might be needed. Of 200 Primroses sold locally in the past ten years, only 11 were brought in needing repairs or adjustment. Of this number the biggest repair bill was 89 cents. Such a record speaks for itself.

THAT is the sort of work the Primrose has been doing for farmers. See the note at left also. Now, with ball bearings and other improvements, the McCormick-Deering Primrose Cream Separator is all the more qualified to save cream and money and time for new owners. Made in 5 sizes: hand and power operated. The McCormick-Deering dealer will show you this ball-bearing machine.

INTERNATIONAL HARVESTER COMPANY
of America (Incorporated)
606 So. Michigan Ave. Chicago, Ill.

MINERAL COMPOUND
in use over 50 yrs
FOR
SYMPTOMS OF HEAVES

Booklet Free

NEGLECT Will Ruin Your Horse

Sold on Its Merits

SEND TODAY

AGENTS WANTED

$3 Package guaranteed to give satisfaction or money refunded. $1 Package sufficient for ordinary cases. Postpaid on receipt of price. Write for descriptive booklet

MINERAL REMEDY CO. 451 Fourth Ave., Pittsburgh, Pa

THICK, SWOLLEN GLANDS

that make a horse **Wheeze, Roar,** have **Thick Wind** or **Choke-down,** can be reduced with

ABSORBINE

also other Bunches or swelling. **No blister, no hair gone,** and horse kept at work. Economical—only a few drops required at an application. $2.50 per bottle delivered. Book 3R, Free

W. F. YOUNG, Inc.
579 Lyman Street **Springfield, Mass.**

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Accepting one of our remarkable money-saving subscription bargains. These attractive offers are open for only a limited period, so order at once. Subscriptions may be new, renewal or extension.

Pictorial Review	$1.50	All Four One Year for Only $1.85
Gentlewoman	.20	
Am. Agriculturist	1.00	
Farm & Fireside	.50	
Farm & Fireside	1 Year	$2.63 Subscription Value for Only $1.32
Youth's Companion	13 Issues	
Christian Herald	13 Issues	
Am. Agriculturist	1 Year	
Farm & Fireside	1 Year	$2.20 Subscription Value for Only $1.10
Today's Housewife	6 Months	
Gentlewoman	1 Year	
Am. Agriculturist	1 Year	

Mail your order now for one of these bargains.

AMERICAN AGRICULTURIST A-14
461 FOURTH AVE., NEW YORK CITY

Long-Time Farm Loans

This Bank has loaned to the farmers in New England, New York and New Jersey over $25,000,000 and has returned to them over $137,000 in dividends.

If you operate your own farm or intend to purchase a farm, we are prepared to make a long-time, easy-payment loan. Interest at 5½%. Payments semi-annually. Loans run for 33 years but can be paid at borrowers' option any time after 5 years. Local representative in every district.

Look ahead! If you will need a loan this season write now for information.

The FEDERAL LAND BANK *of* SPRINGFIELD, MASS.
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AMERICAN AGRICULTURIST

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The Scythe Tree—See Editorial

How Federal Land Banks Help Farmers—By Jared Van Wagenen, Jr.

The American Farmer and the Grange

A Radio Message From the New York State Master

By ALBERT MANNING

NEW YORK State Grange on this its Fiftieth Anniversary year, extends through the medium of American Agriculturist's farm radio program its greetings to all people interested in the development of agriculture and in the welfare and prosperity of the people living on the farms.

Following the Civil War, the President of the United States, realizing the chaotic conditions of agriculture, particularly in the South, appointed O. H. Kelley, a Minnesota farmer, who had been in the Department of Agriculture at Washington, to make a study of the agricultural conditions and report with recommendations as to what could or should be done to revive, develop and protect the agriculture of the country. In making this study Mr. Kelley found no fraternal organization among farmers, developing a brotherly fraternal spirit. He became convinced, therefore, that first of all agriculture needed such an organization of the people living on the farms that they might, not only through cooperation, receive a greater share of the returns from the sale of the products of their labor, but also to give them greater educational and social opportunities. This acquaintance and friendship was necessary to develop a fraternal spirit, without which no cooperative efforts will long succeed.

Organized in 1868

With this vision Mr. Kelley, and a few others whom he had interested along these lines, organized the Grange on December 4, 1868, in Washington, D. C. In 1873 the Grange in New York State had grown sufficiently strong to organize the New York State Grange, which functions through delegates from the local subordinate Granges in this State. The Grange, therefore, is the oldest active large organization of farmers in New York State, now having a membership of over 140,000 farm men, women and children over 14 years of age. Juvenile Granges are organized for those between the ages of 5 and 14 years.

A Membership of One Million

The Grange is organized in 36 States in the Union with a total membership of nearly one million. The State Granges pyramid their efforts through the National Grange, which functions through delegates from the State Granges.

The Grange, true to the characteristics of the farm people, has been conservative in its policies. It recognizes no North, no South, no East, no West. It is non-sectarian and non-partisan, the fundamental principles being to promote the good of the Order, our country and mankind, our motto being "In essentials, unity; in non-essentials, liberty; in all things, charity." From the fact that it has been true to these principles it has lived, grown, and prospered.

The Grange points with pride to the securing of the enactment of such laws as the rural mail delivery; the parcel post; the organization of the United States Department of Agriculture; State departments of agriculture; the recognition of agriculture by the establishment of a Secretary of Agriculture in the President's Cabinet; the development of agricultural colleges and experiment stations; the protection of the great dairy interests of our country from unfair competition and the consumer from being deceived in purchasing adulterated substitute dairy products, such as oleomargarine and filled milk.

Active in Legislation

The Grange helped secure the passage of Federal and State laws permitting the farmers to collectively bargain and sell their products, thus bringing them nearer to the consumer, to the financial advantage of both producer and consumer.

In years past it was frequently said that the farmers could not stick together. During the past few years this statement has been proven false. This ability to stick together and collectively market their products is undoubtedly due in a large measure to the discipline, fraternal spirit, and confidence which has been developed among our farm people in meeting together week after week, month after month, year after year, in such an organization as the Grange.

Aided in Organizing the League

The Grange is proud of the part it has played in assisting in the organization of such cooperative associations as the Dairymen's League with its 70,000 milk producers, advertising and selling its milk, butter, cheese, ice cream, evaporated milk, etc., in the world-wide markets, under its own brand name, "Dairylea." In addition to the Dairymen's League there are the fruit growers, the potato growers, the wool growers, and several other groups organized around their particular products.

Back of the G. L. F. in New York

The Grange also was one of the leading organizations which organized the purchasing agency called the Cooperative Grange League Federation Exchange, Inc., through which the farmers can collectively pool their purchases of necessary supplies. In this effort the Dairymen's League and the Farm Bureaus also particularly assisted.

One of the outstanding constructive pieces of work around which the Grange is centering its activities this year is the rural school. As a culmination of a three years' study by the Committee of 21 of rural school conditions in New York State, a bill was introduced in the last State Legislature, which provided the details for carrying out the recommendations made by the investigating committee.

In Support of Rural School Bill

Legislation on this bill has been deferred until the next session, for the purpose of giving the rural people more time to carefully consider this rural school bill. The great aim in preparing these amendments to our rural school law has been to give the greatest degree of local control possible to a comprehensive, State-wide system and to make it possible to extend to every boy and girl not only the opportunities of our common schools, but also making possible that high school opportunities might be provided near at hand and avoid the necessities of sending boys and girls away from home for their high school education. At the same time by equalizing the tax rate and readjusting the State aid, avoid increasing school taxes upon the farms.

This briefly in part is a story of the Grange and its efforts to promote a better agriculture, to develop a better manhood and womanhood among ourselves, and to make a happier, more cultured, and prosperous agricultural people.

Mr. Manning's Grange Message

ALBERT MANNING, whose talk on this page was broadcast from WEAF on May 23, at 6.30 standard time, needs no introduction to eastern farmers. Whether he talks of the Dairymen's League Co-operative Association, of which he is secretary, or of the Grange, of which he is New York State master, he knows whereof he speaks. We are sure, therefore, that whether or not you are a Granger, you will like Mr. Manning's message on the Grange, which is one of the largest and finest of farm organizations.—The Editors.

The Unreliable Promoter

REFERRING to your editorial on Page 136 entitled "Take Time to be Sure," I would suggest that this is the strong point of the promoter of questionable propositions. He plans to get his victim secured before he has time to think.

A number of years ago a smooth tongued promoter of a cooperative creamery visited this part of West Virginia. He was in a great hurry, did not have time to talk long with the people, but just explained his proposition to his intended victim and if there was any hesitancy on the part of the other party he put up the proposition that it is now or never. He had the farmers in a community bound up for $6,000 to have a creamery built and equipped before they hardly had time to think. Of course, the work was done, but it was a business misplaced as the people knew nothing of the creamery business. Their cattle were of the beef type rather than dairy. They did not have one fourth enough cows to warrant the building of a creamery and, of course, the investment was a load as the creamery was a complete failure. Another community got off better. They gave the promoter 10% cash on the stock, to quit and not build the creamery.

It seems to be the nature of people to fall easy victims to strangers and to turn down good business propositions offered by people whom they know to be honest.—A. J. LEGG, W. Va.

American Agriculturist

THE FARM PAPER THAT PRINTS THE FARM NEWS

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

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How Federal Land Banks Help Farmers

One Answer to the Need for a Dependable Source of Farm Financing

By JARED VAN WAGENEN, JR.

THERE is no doubt that changing economic conditions in the country is compelling the farmer to look toward some of the newer systems that afford credit to the man on the land. The Federal Land Bank is organized under a law which was approved by President Wilson in July, 1916. The Act grew out of many years of discussion and agitation looking toward a more comprehensive credit system for farmers. To a great extent it was modeled upon the experience of Europe where—especially in Denmark—somewhat similar institutions had been functioning for many years.

It should be recognized that the theory of the organization of the Federal Land Bank is to some extent altruistic. Students of farm economics—more perhaps, than the actual farmers themselves—had long insisted that when the farmer sought a loan he did not have the same facilities or receive the same consideration that was accorded to other industrial classes, although I understand the bankers admit that in proportion to the security he has to offer the farmer is a relatively small borrower.

A Case of Who is Borrowing

A great industrial corporation or railroad system decides that it wishes to borrow a million or several million dollars and it announces that a bond issue will be sold and wide publicity is given to the fact. In some cases if the security and terms seem favorable the demand will be so eager that the entire issue of many millions will be sold within an hour or two after the books are open to receive subscriptions. "Receiving subscriptions" seems to be the official term for borrowing money by selling bonds. Now a hundred million dollar bond issue against the property of some enormous corporation is, in no real essential, different from the procedure of Mr. Jones and wife who wish to place a mortgage of $2,000 on their hundred acres of land with buildings. But if Jones lives in the eastern States at least, the village banker will hardly be interested and unless he has a well-to-do neighbor who happens to be looking for an opportunity to invest a little money, he will hardly know how to go about the task of finding someone to loan him this sum on what is really the very highest class security.

Strictly a Business Transaction

In talking with New York State farmers I do not get the impression that the local banks have discriminated against them as a class. As a matter of fact, banks need borrowers and indeed must have them if their business is to be profitable. The loaning of money to a man with good credit is not solely a favor on the part of the bank, but it is a business transaction which ought to be advantageous to both parties. In the matter of small temporary loans the country bank has generally extended to the farmer the same consideration and courtesy that was shown to, say, the village grocer, but in the East the bankers almost universally fought shy of farm mortgages. In some ways they are sound in this position because a farm mortgage can hardly be regarded as a quick asset.

Then, too, there is another factor that has come into the case since the days of our rather hectic Liberty Loan "drives." I feel that up to that time each rural community had money enough to finance its own requirements. Nobody had much money. Most generally the savings of long years of thrifty, forehanded farmers was represented by saving bank deposits and by local farm mortgages. Then came our great war time campaign for funds on the part of the Government and under the stress of patriotic appeal together with the impulse of sound business judgment about all of this floating rural capital was safely locked up in the world's premier security—Uncle Sam's promise to pay. These same bond campaigns also taught the people that there were many other ways of investing money—some of them mighty poor ones.

One Reason for the Land Bank

In any case the rural districts were pretty well sucked dry of floating capital and the local money lender having entrusted about all his savings to the Government at Washington is no longer able to finance Jones when he comes across lots to see him. I am sure that this is exactly what has taken place and that is one reason why some institution like the Federal Land Bank is more necessary than of old.

I suppose that almost every farm community has had its local farmer-financier and let it be noted in passing that only rarely was there a local Shylock. Many of these old mortgages included considerations of neighborliness, personal friendship and not infrequently sympathy; and forebearance and consideration were stretched to the limit. It was fine—this human, personal relationship.

Our County had once a man—dead now for more than a generation—who was a remarkable example of the rural financier. I know of no reason why I should not give his true name—"Joe" Brown. Only the other day I passed the little white "story and a half" frame house on a little street of the hamlet where he lived. He was long recognized as the richest man in our County, having, it was said, something like $300,000—a vast sum in that day or even now among farm people. Practically he recognized only one form of investment—local farm mortgages. He may have been narrow and penurious—miserly, if you will, "but he was not hard—rather a gentle, kindly, merciful man. He held scores of mortgages all over northern Schoharie County and was a community banker in every thing save name.

Doubtless many envied him his wealth, but it is remembered concerning him that almost never did he foreclose a claim or seek collection through the courts.

A Man of Mercy

He was accustomed to instruct hard-pressed men to "keep enough to pay the taxes and make your family confortable and if there is anything left over, bring it to me." He was an ancient man when he at length died near the close of the long period of lean years that followed 1870. It was said that his estate was much smaller than it it would have been 20 years before because there was so much unpaid interest in arrears and so many farms where the decline in land values had largely wiped out the original equity. I doubt not that when Joe Brown shall answer "Here" and stand to plead at the bar of the Great Assize, it will be found written in the Book that in very many cases he had, in the phrase of old "Micah," "done justice and loved Mercy" and dealt with the affairs of simple men in kindly ways.

Well, his career ended more than a generation ago. If he was living to-day I feel sure that he would have made the discovery that there were superabundant opportunities to buy securities of all sorts, including a long list ranging from United States Government Bonds down through State and city and township and even local school districts, the returns from which are free of all income taxes and are also safer and freer from annoyance and vexation than farm mortgages. In a word he would not now serve the community as he did then.

A Need for Dependable Farm Financing

There is surely a growing need in the farm country for an accessible and dependable source of farm financing. The Federal Land Bank was established primarily to meet this need.

I have done an occasional job of farm appraisal for the Land Bank ever since its

(*Continued on page* 454)

Farm Credit Information

WHAT about all this talk about credit for farmers? Recently we asked Mr. Van Wagenen to go up to the Federal Land Bank at Springfield, Massachusetts, and get the facts as to how the Federal Land Bank helps farmers with their mortgages.

On this page is what Mr. Van Wagenen found, written in his usual interesting and readable style. You cannot read this article without having a very clear understanding of just how the Federal Land Bank works and how you should go about it to borrow money from the bank on a mortgage.

Later we will have other articles on other features of farm credit, including information about the new credit legislation passed the last Congress.—The Editors.

Editorial Page of the American Agriculturist

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In Memory of '61

THE famous scythe tree, a picture of which is on our cover page, is the finest monument we know to all those country boys who left plows in the furrow and scythes in the trees to answer Lincoln's call for volunteers.

In 1861, James Johnson of Waterloo, New York, came in from the hay field, hung his scythe in this tree, then a sapling, and told his parents to leave it there until he returned. He then enlisted; and was killed in 1864.

At the present time, only about six inches of the scythe blade protrudes from the side of the tree. You can see it in the picture on the right side of the tree, near the eaves of the barn.

No Memorial Day address or editorial speaks more eloquently of the spirit of the American farmer in times of crisis than does this silent old tool of the hayfield which has waited for sixty-two years for the return of the farmer soldier boy who put it there.

Organization and the Dairy Show

EVEN ten years ago it would have been impossible to have held as large and as successful a farm meeting as the one at Syracuse, May 14, to make plans and pledge support to the World's Dairy Congress and National Dairy Show which is to be held on the State Fair Grounds next October. The enthusiasm of the large representative attendance, which came from eleven States and from nearly every agricultural county in New York, assures the success of the Dairy Show; and the success of the Dairy Show will mean much to the future welfare of eastern dairymen.

The Dairy Show plans got off to a big start because agriculture is so well organized that it was possible to bring all the machinery of organization to bear to make this preliminary meeting a success. Fifteen State-wide organizations from New York State alone were represented. As usual when anything worth while is to be done in New York State, the county farm bureau agents had a hand in it. Mr. M. C. Burritt, vice extension director of the New York State College of Agriculture, put all of the vast organized extension machinery of the college at work, chiefly through the county agents, to bring this meeting to the attention of leading farmers in every county. The county agents got busy and many of them came to Syracuse on the 14th with delegations of farmers, all prepared to pledge their support and do their part to boost the dairy cow through the coming Dairy Show.

As we looked over the audience of 450 men, so representative of eastern agriculture, we were again impressed with the fact that if you give farmers time, they will work out most of their own problems and bring about a new day in agriculture through cooperation.

Governor Smith's Crisis

GOVERNOR SMITH is facing one of the most important decisions in his career, Shall he approve or veto the bill repealing the Mullan-Gage Law? Political "wiseacres" are prophesying on the one hand that he will listen to the wets and sign the bill. Others are saying that if he has national political ambitions, he will veto the bill.

Those of us who have watched Governor Smith's political career feel confident that he will follow the dictates of his conscience in this most important crisis, and do the right thing—namely—veto the bill repealing the Mullan-Gage Law.

Standardizing Farm Machinery

HOW many, many times farmers have complained bitterly about the apparently devilish ingenuity of farm-implement manufacturers in putting a nut on a bolt where it was practically impossible to get at it with a wrench, or in making every bolt and part of any particular make of machine entirely different from the corresponding parts of all other makes. So many were the machines, and so different were all parts of them, that repairs at home have usually been impossible. The local dealer, too, has not often been able to help out unless he happened to have the same make of machine and a duplicate of the broken part. The first cost of any machine is by no means the whole story. The repairs that the farmer can make himself quickly and easily to the machine, and the service and the quick duplication of parts by the manufacturer and local dealer, are of almost as much importance as the original purchase price.

During the war the Government urged simplification and standardization of farm machinery. Following this suggestion, many of the manufacturers made a start, saw that it was a much-needed service, and have continued the movement to cut out unnecessary styles and sizes and to standardize material and parts. This standardization has begun to show already in the new machines, and we predict that the manufacturers who do the most along this line without injuring the efficiency of their product will get the farmer's business.

The Market Page

MAY we call your special attention to our market page. Few can realize the large amount of work necessary to get information of this kind together, which is of practical use to farmers and which is absolutely reliable. It would be a comparatively easy matter to copy miscellaneous market reports out of government bulletins and press releases. It is an entirely different matter to get the information direct, as our Mr. Jones does, from the markets themselves and to interpret this information in the terms that farmers can understand and use.

Mr. Herschel Jones, our market expert, who prepares the market page each week, was formerly in charge of the New York City office of the Department of Farms and Markets and we know of no one who is better fitted by training, experience and ability to go into these greatest markets in the world and get from them the information which will be of most value to the farmers who have produce for sale.

Too Valuable To Waste

WE have received a number of letters from readers who were particularly interested in recent articles by H. E. Cook and Jared Van Wagenen, Jr., on handling farm manure. Mr. Van Wagenen's humorous comment about the interesting time he had when a boy in "playing barnyard golf," by pecking the frozen manure loose from the barnyard, shows the extreme care that farmers of a former generation took in saving every bit of manure for the land. But it seems to us that they failed then, and that farmers are still failing, in most cases, to do the one thing that is more important than anything else in conserving this important fertilizer. How many, many times we have noted great piles of manure that have had much of its real value as a fertilizer drained away and lost. We see little point to the many hours of hard labor that we ourselves used to put in in hauling manure in the spring or summer after most of it had stood all winter and spring exposed to weather and drainage conditions so that at least half of its fertilizing elements were lost.

Without question, farm manure, when properly handled, is the best fertilizer there is. In some countries in Europe a man's worth is judged by the size of his manure pile. Considering the high cost of commercial fertilizers, farm manure is especially valuable and worth saving. This means methods will pay big dividends that will get it on the land in its original form. Where it is hauled in a water-tight conveyance from stable to field, this end is accomplished. If this is not practical, and there are always times of the year when direct hauling cannot be done, then some kind of a manure shed with concrete bottom is absolutely necessary.

Concrete is comparatively cheap and easy to construct. It is not used half as much on most farms as it should be, and the first place to begin is with some kind of a protecting shed to save the best part of the manure. There is not much use in talking about the importance of manure or how to handle it in the field until the fundamental step is taken to save its original essentials.

What is the Ku Klux Klan?

A CORRESPONDENT writes, "Just what is the Ku Klux Klan?" It is impossible to properly answer this without going into great detail.

Briefly, Ku Klux Klan is a secret organization claiming to admit no one to membership except native born Americans, and having for its alleged purpose the maintenance of law and order.

Although claiming to be American in membership, the Ku Klux certainly falls far short of Americanism in principles. One of the fundamental principles of America is freedom of worship, but the Ku Klux is bitterly opposed to certain religious sects. It would seem also that those who are so strong for American principles would recognize the un-Americanism of attempting to correct wrong under cover of night, and a robe and independent of the governmental agencies that the people have established for maintaining justice.

Syracuse Meeting Boosts Dairy Show

Success Assured By Pledges From All Farm Organizations

FOUR hundred and fifty farm leaders, including representatives from nearly every agricultural county in New York State and from the eleven other agricultural States, met at a dinner at Syracuse, Monday evening, May 14, to complete the organization and lay the plans for the National Dairy Show and World's Dairy Congress which are to meet on the State Fair Grounds October 5 to 10, 1923.

The dinner was given in honor of E. Skinner, manager of the National Dairy Association, and was held under the auspices of the Syracuse Chamber of Commerce. New York State Conference Board of Farm Organizations, and the New York Cooperative Council. Much of the credit for the large representative attendance and the enthusiasm which prevailed was due to the work and organization ability of Professor M. C. Burritt, of the New York State College of Agriculture, and J. D. Barnum, publisher of the Syracuse Post-Standard. During the dinner, the assemblage was splendidly entertained by an orchestra, a male quartet, and community singing.

Presiding at the honor table was W. W. Wiard, vice president of the Syracuse Chamber of Commerce. Messages of welcome to the farmers were extended by John Walrath, Mayor of Syracuse, George R. Lunn, Lieutenant-Governor of New York State, and Charles W. Flint, chancellor of Syracuse University. The toastmaster was Albert R. Mann, dean of the New York State College of Agriculture. Much credit was due to Dean Mann for handling the long list of speakers in such a way that no one in the audience became tired.

The chief speech of the evening was made by W. E. Skinner, the honor guest, on the subject, "The Service of the National Dairy Show for Eastern Agriculture." Mr. Skinner said that the National Dairy Show is operated by the National Dairy Association, which was started some 17 years ago, for the purpose of improving the dairy breeds of America, and increasing the consumption of dairy products. The National Dairy Show is made up of and supported by producers and representatives of all interests that manufacture or distribute milk. Each year the work of the Dairy Association is culminated by a National Dairy Exposition. Up to 1916, these shows had been held in Chicago. In 1916, upon the request of the dairy interests of New England, the show was staged at Springfield, Mass. During 1917 and 1918, it was held in Ohio; during the following two years, it went back to Chicago, its original home. In 1921 and 1922, it was held in St. Paul, Minnesota. It now comes back to the East to Syracuse in October, 1923, to help the eastern dairy industry.

Mr. Skinner then gave his audience some idea of the tremendous size and extent of the exhibits which will be at Syracuse this fall. In the big building at the entrance of the Fair Grounds, known as Manufacturers' Hall, there will be exhibited all implements that the genius of man has perfected for handling milk and all of its products. The United States Department of Agriculture has appropriated $25,000 alone to show in this building what is being done for the dairy industry.

Near the Manufacturers' Building, there are the Dairy Building and the State Institute Building, where there will be exhibits especially arranged, showing the scientific equipment that is used in research work connected with the dairy business. Many of these exhibits will show scientific instruments invented and used in Europe. Just one exhibit in the main room of this building, showing the possibilities of butter and cheese production, will contain samples of cheese from 45 States and butter from 41 States. A very interesting exhibit will be given by various nutritional agencies from all over the world showing the many and varied uses of butter and other dairy products in the diet.

In the Poultry Building there will be everything connected with the barn and farm used in the production of milk, including milking machines, separators, milk houses and equipment, etc.

The dairy cattle at the National Dairy Show will alone be worth the trip of every dairyman in the East. The cattle barns will be filled with representative cattle of the five dairy breeds. "These will come," said Mr. Skinner, "from the four corners of the United States."

One of the interesting studies being made by the National Dairy Association, according to Mr. Skinner, is the effect that climate and altitude have on the production of milk. He said that it had been found that a heifer raised in Texas and taken north and wintered for two years will weigh 600 pounds more than her sister of the same age left in Texas. The speaker emphasized the thought that it ought not to be necessary to import cattle from other countries for there are larger possibilities of improving our own cattle.

Mr. Skinner congratulated New York State on the building of the new coliseum on the Fair Grounds where the cattle will be judged. This coliseum has a seating capacity of 500,000 people, with a judging arena of 100 x 200 feet.

Lovers of horses will be pleased with the night horse show and exhibit in the horse barn of 200 to 300 of the nation's best horses.

Not the least interesting of the cattle exhibits will be 100 to 200 calves from an equal number of boys and girls who will be present to demonstrate what the calf clubs of the country are doing for the young people of the farms.

Manager Skinner proceeded to show why an institution like the National Dairy Association and Show was so necessary. He said the Dairy Show came with the change brought about by the disappearance of the great range country; that with the going of the cheap lands, dairy and all other farming had become much more intensive; that farming was much more of a business than ever before, and that to meet the demands of this intensive business, much education was necessary. "The dairy cow, the hen and the hog," said Mr. Skinner, "are the only opportunities the farmer has for a quick turnover. The Dairy Show exists for the purpose of helping the farmer make that turnover profitably so far as the dairy cow is concerned."

To show the rapid increase in the importance of the dairy industry, the speaker said that, "in 1920, corn was king, with a farm value of $1,300,000,000; in 1921, the farm value of dairy products of the country was nearly twice as much or $2,409,000,000. Bankers are in the habit of thinking in terms of gold. Yet in 17 years, the total output of

(*Continued on page* 455)

Joint Meeting of Conference Board of Farm Organizations and Cooperative Council

Standing (left to right)—W. E. Mathers, E. J. Walrath, H. R. Talmadge, E. V. Underwood, T. E. Milliman, A. L. Brockway, L. R. Simons, L. E. Porter, F. E. Robertson, H. E. Aiken, W. P. Harper, R. P. McPherson, W. E. Davis, M. C. Burritt, C. H. Moore, Fred Freestone, C. J. Mitchell, Oscar Soule, N. F. Webb, R. E. Duell, M. C. Bond and W. M. Rider.

Seated (left to right)—H. E. Babcock, C. G. Porter, T. E. Cross, E. R. Eastman, Albert Manning, C. F. Bigler, Charles Wilson, H. W. Davis, Mrs. A. E. Brigden and Mrs. R. G. Smith

How Federal Land Banks Help Farmers

(*Continued from page* 451)

early days and feel fairly familiar with its methods and precedure. But a few weeks ago, at the request of the American Agriculturist, I made a trip to Springfield and spent a day at the bank in order to check up my information and to make sure that I was not presenting anything other than the truth regarding the work of the bank. The word "bank" in a big city at least suggests a large, ornate room on the level of the street, with revolving portals and uniformed attendants, and men locked in steel cages along with stacks of coin and imposing rolls of "yellowbacks." Well, the Federal Land Bank is quartered well up toward the top of a tall office building, and there is very little about it to suggest our usual ideas of a bank. I went around at the stroke of nine, which I supposed was the very earliest hour at which any one would appear, and found the place already humming with activity and punctuated by the clack of typewriters. Of course, the mere handling of money is a very small part of their activities.

Not a Government Institution

LET me make one thing plain, and correct a common misapprehension, the Federal Land Bank is not a government institution. It is organized under the Land Bank Act, and it enjoys a large measure of governmental control, supervision and privileges, but it is a private corporation, nevertheless. In one important respect, the Federal Land Bank differs from the so-called joint stock land banks in that the latter are private corporations formed for the purpose of personal gain, while the Federal Land Bank is, by its charter, specifically declared to be a non-profit-making organization, and any profits arising from its operation must eventually be returned to the borrowers through the local associations. It seems to me that the difference is fundamental.

The money that the bank loans is obtained through the sale of its bonds, these bonds being secured by the original mortgages. Now, to be exact, these are not really government bonds because the government does not guarantee their payment, but as a matter of fact they enjoy a reputation for absolute soundness that permits them to be sold in large amounts at prices comparable to the very highest class municipal and State obligations. Somehow, the financiers do not for one moment question the credit of the bank.

Encourages Thrift

I MIGHT add the somewhat remarkable fact that these bonds will be sold to farmers in amounts as small as $40 and at prices just as favorable as if he was a very large purchaser. This is simply in line with the policy of the bank to encourage thrift among farmers and not to make money for any individual. Last year the Springfield Bank sold more than $60,000 in bonds to farmers.

However, it must be understood that the bank is not wholly a philanthropic or benevolent institution. It is true that it is not organized for the purpose of private gain, but rather for the purpose of furnishing more advantageous borrowing facilities for farmers. Yet—unfortunately, perhaps—it cannot finance the insolvent farmer. One common criticism of the bank is that it emphasized "safety first" so strongly that usually the man who it can help can also help himself. I am sorry that this is in a great measure true, yet, on the other hand, if it were to adopt the easy policy of loaning everybody all they asked, it would be only a question of time until it would be unable to loan anybody anything. The bank is by no means superior to economic law. If a loss is sustained, it is born not by the government, but by the bank, and in the end this loss is passed on to the stockholders (the borrowers) in the form of reduced dividends. The policy of rigorous safety is, after all, the only one that is fair to all their thousands of stockholders.

If there is a default in interest or principal, the bank has no special advantages or privileges. It can only follow the usual rather long and expensive route of foreclosure through the courts.

Under Government Supervision

IF I were to define or describe the function of the Federal Land Bank in a single sentence, it would run like this: It is a great cooperative corporation operating under intimate governmental supervision and control, and its business is the loaning of money secured by first mortgages on farm property under unusually liberal and attractive terms.

At first sight, there does seem to be a good deal of red tape about getting a loan from the bank. What might be called the "farm end" of the proposition is the local farm loan association. In any locality, a group of ten or more farmers whose borrowing needs aggregate not less than $20,000, may form themselves into an organization, select a secretary-treasurer, and with the approval of the bank become a local association. The field of such an association is generally, but not always, bounded by county lines. Every county in the Springfield territory is now regularly secured by some local association. The essential officers of such an association are the secretary-treasurer and the loan committee of three members, whose business it is to make a preliminary appraisal of all farms offered, and to make such recommendation as seem wise to them. All movements looking toward a loan must originate with and be vouched by the local association.

Applying for a Loan

THE owner of a farm who wishes to offer it as security for a loan must first make application through the secretary-treasurer of the local association. It then becomes the duty of the loan committee to make an examination and appraisal of the farm along with the collection of such other information or data as may have a bearing upon the matter. This report must be made a part of the application to the bank and must always be signed by all three members of the loan committee. Perhaps this report may be characterized as a sort of guarantee of good faith on the part of the local association. If it seems evident to the loan committee that the loan asked is impossible, the matter stops right there. This appraisal of the loan committee cannot be increased by either the Federal appraiser or by the bank, but it can be decreased by either.

After an application for a loan has been approved by the local association, it will be forwarded to the bank, which will then direct its own—the so-called "Federal" appraiser to examine and report on the property. His report, after being forwarded to the bank along with the original application, which will be very promptly considered and passed upon by the executive committee of the bank, and the applicant will immediately be advised of their decision. The bank may take any one of three courses: (a) It may grant the loan for the full amount asked; (b) it may grant a loan for a sum smaller than that applied for; (c) it may unconditionally refuse the loan. This latter course is not infrequent if there seems to be unfavorable factors which can ultimately result only in disappointment and disaster.

Refusals Sometimes a Kindness

I FEEL sure that to refuse a loan is often in the end the great kindness. I remember once appraising a rather good farm which had been purchased a few years before by some misguided "back-to-the-landers." They were fine, intelligent, refined, Christian people, but they were helpless and hopeless babes-in-the-woods so far as agricultural matters were concerned. They were accumulating floating debt and running behind until finally they turned to the bank for a loan. I went over their plans and affairs with them, and was convinced that a loan would only prolong the agony a few years—a conclusion with which the bank agreed, although on the face of it the risk was not a bad one. The same farm and the same loan would have been unhesitatingly granted if the applicant had been a real farmer who knew his right hand from his left. Personally, I am inclined to lay great stress upon this human factor. I believe the great financier, the elder Morgan, said that he had loaned some men a million dollars on their unsupported say-so, and that he had refused a loan to other men who came with bales of bonds seeking it.

In securing a loan there are two, or, perhaps, we must say three, items of expense to the applicant. First, there is a fee of $10 which goes with the application and which cannot be returned even if the loan is subsequently refused. This fee is for the purpose of partially (and only partially) defraying the cost of appraisal by the loan committee, the Federal appraiser and also the preparation of the necessary papers. If the loan is granted there will be a fee of one per cent of the amount of the loan, but the ten dollars at first advanced will be deducted from this amount.

The Abstract of Title

A MORE serious expense or payment which in no way directly benefits the bank is connected with the fact that after all other details are completed and before the loan is actually closed, the applicant must furnish to the satisfaction of the bank an "abstract of title" showing that there is no cloud on the title, such as unsatisfied judgments, wills that have not been properly probated, or ancient encumbrances of any kind. It ought to be said that an abstract of this kind often requires a great amount of skilled research on the part of attorneys accustomed to the work. I was shown abstracts whose bulk amazed me. If set up in type they would make a fair-sized book. The bank is surely very rigorous in this matter. Personally, I have wondered if in the interest of service and economy it might not be possible to waive a part of these requirements, although that idea does not for one moment appeal to a title attorney.

(*Continued on page* 463)

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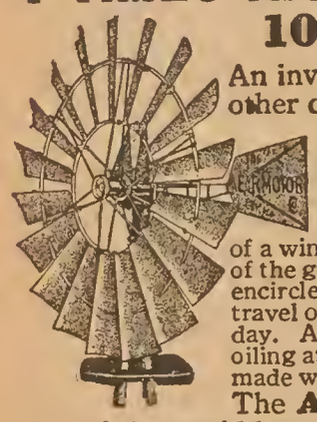

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Gasoline Engine Milker. Electric Milkers also

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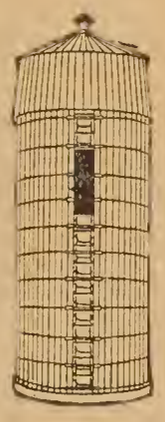

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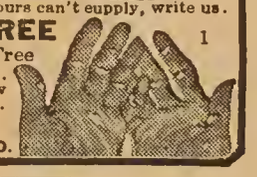

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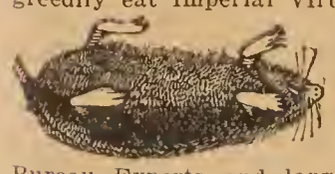

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April Milk Pool Price $2.15

League Directors to Be Elected May 26

THE Dairymen's League Cooperative Association announces that the gross pool price for April is $2.15 per 100 pounds for 3 per cent milk in the basic 201-210 mile zone from New York City. This gross price is 75½ cents higher than the gross pool price for April a year ago.

From the gross pool price there will be deducted 7½ cents per hundred for expenses of administration, advertising, etc., and 15 cents will be borrowed on the Certificate of Indebtedness plan. This leaves a net cash price to farmers of $1.92½ compared to $1.23½ for April, 1922, a difference of 69 cents in favor of the April, 1923, price. The net pool price of 1923 is better than the 1922 price by 74 cents.

A review of the April prices on the five classes in 1922 and 1923 shows, upon analysis, an increased efficiency of 20½ cents per 100 pounds. In other words the League is handling milk more efficiently, at the rate of 20½ cents per 100 pounds

LEAGUE MEMBERS VOTE FOR DIRECTORS MAY 26

The term of office of eight directors of the Dairymen's League Cooperative Association, Inc., terminate this year and renominating meetings have been held in the eight districts involved. The meetings were held on May 8. Following are the nominees:

District 2, Harry Culver, Amenia, N. Y.; District 4, Harry Bull, Campbell Hall, N. Y.; District 6, J. D. Smith, Walton, N. Y.; District 8, Bradley Fuller, Utica, N. Y.; District 14, G. R. Fits, McLean, N. Y.; District 17, H. H. Marsh, Waterford, Pa.; District 22, J. D. Miller, Susquehanna, Pa.; District 23, E. E. Kinsman, Honesdale, Pa.

All of these are renominations with the exception of Mr. Kinsman, the only new director who has been nominated to take the place of Paul Waters. Mr. Waters has discontinued farming and is therefore ineligible to act as a director. On Saturday, May 26, the local association in the 24 districts which make up the League territory will vote on these eight directorships. There is no rule which compels a league member to vote for these men who have been nominated. They have the option of voting for anyone whom they desire by denoting their choice in the blank space provided on the ballot. The men who are elected on this ballot will sit as directors for the regular term.

Syracuse Meeting Boosts Dairy Show

(*Continued from page* 453)

all the gold mines of the country was only $2,760,000,000, or a little more than the total farm value of the dairy products produced in one year."

Trying to show the value of the Dairy Show as an educational institution for dairymen from another angle, the speaker said that the average product per cow in the United States was 3,627 pounds. Yet there are cows which produce over 30,000 pounds in a year. In the Netherlands, the average is 7,585 pounds per year; in Switzerland, 6,500 pounds; in Canada, 3,729 pounds; and the United States is the lowest in the list with 3,627 pounds.

The speaker then said that while one object of the Dairy Show was to increase production per cow, another object, which must be equally emphasized, was to increase consumption. And then he went on to prove with figures that the average per capita consumption of dairy products in United States was much lower than almost any European country, and that we have just begun to touch the possibilities of increasing consumption in this country.

Mr. Skinner's splendid address greatly increased the knowledge of and therefore the enthusiasm for the coming Dairy Show.

Following his talk, the toastmaster called upon many representatives of the visiting State delegations and New York State farm organizations to state briefly what the farmers will do for the Dairy Show. Representatives from colleges of agriculture and farm organizations from the following States responded: Massachusetts, Pennsylvania, Connecticut, Rhode Island, New Jersey, New Hampshire, Ohio, Michigan, Delaware, Vermont, Illinois, Virginia, New York and Maryland. Eleven of these States were represented, and the other three have pledged the support of their agricultural organizations.

Among those from New York State who made short, but good talks on what their organizations would do for the Show were: S. J. Lowell, Master of the National Grange; Enos Lee, President of the New York State Farm Bureau Federation; Mrs. A. E. Brigden, President of the New York State Federation of Home Bureaus; Albert Manning, Master of the New York State Grange; Paul Smith, member of the Executive Committee of the Dairymen's League Cooperative Association; Charles Wilson, President of the New York Horticultural Society; Professor W. A. Stocking, President of the New York State Dairymen's Association; and C. F. Bigler, President of the New York Holstein-Friesian Association.

Following these talks, H. E. Babcock, General Manager of the Grange-League-Federation Exchange nominated Berne A. Pyrke, Commissioner of the New York State Department of Farms and Markets, as chairman of the permanent organization to perfect and carry out plans for the success of the World's Dairy Congress and National Dairy Show; and E. R. Eastman, Editor of American Agriculturist, nominated Professor M. C. Burritt, of the New York State College of Agriculture, as Secretary. Both of these men were unanimously elected.

Dr. Royal S. Copeland completed the toast list with an address on the importance of dairy products and their relation to human welfare.

The attendance and enthusiasm at this organization meeting are some indication of what the World's Dairy Congress and National Dairy Show are going to be, and what they will mean to all dairymen in the eastern United States.

Watch American Agriculturist for news about and plans for this big event. We hope that every dairyman will make an effort to be among the thousands who will attend.

GUERNSEYS AGGREGATE $24,000 AT PORT CHESTER SALE

Something like 50 head of pure-bred Guernseys were sold at the Knollwood Farm sale held at Port Chester on May 15, netting approximately $24,000 for their owner, Edgar F. Price. Between 500 and 600 persons from all parts of the United States attended. Purchasers represented several different States. The top cow of the sale went to D. O. Brent of Owensmouth, California. Mr. Brent purchased Ultra's Grace for $2,500.

Outside of this purchase only two other cows brought over $1,000. These were Maybell's Ultra Lass, purchased by W. R. West of New Bedford, Mass., for $1,025 and Florham Gold Princess purchased by E. Farino of Hopewell Junction, N. Y., for $1,000.

Some of the cattle sold belonged to J. O. Winston of Saugerties, N. Y. L. F. Herrick of Wooster, Mass., was the auctioneer. The States into which the cattle were sold include California, Massachusetts, Michigan, New York, Connecticut, New Jersey, Indiana, Pennsylvania, Ohio and Virginia. Although three cows brought over $1,000, the majority of the individuals averaged between $300 and $600 each.

Wisconsin is the only State which exceeds New York in total number of dairy cattle. Minnesota has nearly as many dairy cattle as New York. On January 1, 1920, New York had 2,081,074 dairy cattle, including 1,481,918 cows and heifers two years or older. New York has had approximately the same number of dairy cows for the past 50 years.

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The Silo of Economy

EVERY dollar put into a Unadilla Silo comes back many times during its long life. Its clever door-fastener safety-ladder makes it possible to preserve the life of a Unadilla indefinitely.

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See why the Unadilla is the most economical silo. Write for the big Unadilla catalogue and special discount on early orders.

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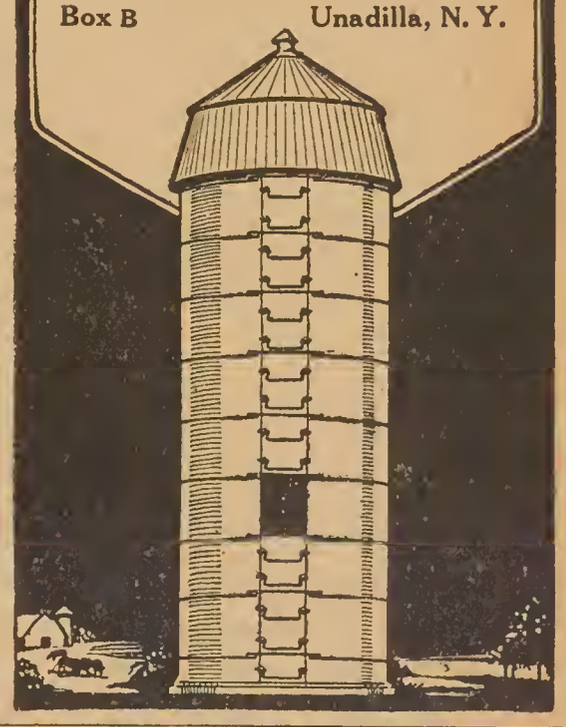

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SIRE: Korndyke Pontiac Glista, No. 268342, a grandson of the great Cornell cow, Glista Ernestine with seven records of over 30 lbs. butter in 7 days. Best record 677.3 lbs. milk, 34.22 lbs. butter 7 days.

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Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.00 each. 8 to 9 weeks old, $6.50 each.

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Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.

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OSWEGO RIVER STOCK FARMS, Phoenix, New York

New York Farm News

Farm Organizations For Mullan-Gage Law

THE New York Conference Board of Farm Organizations and the Cooperative Council, meeting in Syracuse May 14, passed a resolution "emphatically and unanimously against the repeal of the Mullan-Gage Law". Secretary E. R. Eastman of the Conference Board was instructed to send a telegram to the Governor asking him in the name of the farm organizations of the State to veto the bill repealing the Mullan-Gage Law. Farm leaders present represented the Farm Bureau Federation, New York State Grange, State Horticultural Society, Federation of Home Bureaus, and Dairymen's League Cooperative Association, in the Conference Board, and fourteen commercial organizations of State-wide scope in the Cooperative Council.

There was not a single dissenting voice in the resolution condemning the repeal of the Mullan-Gage Law.

A resolution was carried by the joint meeting endorsing all the work that had been done to date by the temporary committee in organizing plans for the National Dairy Show, to be held in October.

Dr. Royal S. Copeland, United States Senator from New York, was then introduced and gave a very interesting address on the coal situation and the country's transportation troubles. Dr. Copeland showed that while commissioner of the City of New York, he became particulary interested in the coal mining situation because of the effect of the shortage of the coal upon the health of the people of the City, and as a result he made a very thorough investigation of the whole coal and railroad problem.

He said that these investigations showed that there was plenty of coal above the ground during the crisis of the past winter, but the trouble was the railroads were unable to transport it. During the railroad shopmen's strike of a year ago, 218 railroads in the country made peace with their men. There were a few railroads which did not come to an agreement, and unfortunately these few were mostly the coal bearing roads, including the Lehigh Valley, Delaware and Hudson, Delaware, Lackawanna and Western and Central Railroad of New Jersey.

The speaker said that at one time 70 per cent of the engines of the Lehigh were out of order. He said also that the financial statement of the Lehigh Valley Railroad showed a loss, which was mostly caused by the strike, of $1,991,000, and that much of this loss—which in the end must be paid by the people—might have been avoided had this road settled its dispute with its men at the same time that the other 218 roads of the country had.

Dr. Copeland stated that the railroads were new trying to raise one and one-half billion dollars for new equipment. "These roads might much better," said the speaker, "have fixed up some of their old stock first." Senator Copeland also stated that the coal situation for the coming winter was likely to be very serious again.

At the close of Senator Copeland's address, a motion was carried by the joint meeting extending him a rising vote of thanks.

WESTERN NEW YORK NOTES

ALVAH H. PULVER

The Wayne County Farm Bureau, as announced by Manager Wagner, will soon start some reforesting work in the county in cooperation with the State Conservation Commission and the New York State College of Agriculture. The Commission has cooperated to the extent of furnishing free to the county 10,000 forest trees, mostly of the white pine variety. These will be set out on the farms of Dwight F. Gaylord, North Rose; Marvin Shannon, Alton; George Scheer, Newark; E. E. Wood, Butler; and Charles Bridger, Alton.

The Webster Cooperative Cold Storage has been completed to the extent that part of the capacity is available for use. The capacity of the plant is approximately 50,000 barrels and the storage provided so far has included about 20,000 barrels of apples and 35 carloads of dried apples, cores and skins. More trackage will be necessary to handle the holdings economically. An ice plant with capacity of 15 tons of ice every 24 hours will be installed. The New York Central railroad has assured the company officials that all the ice the plant can make over its needs will be taken by the railroad.

Prospects are now very promising for a new cold storage plant at Geneva. Representatives from Hall, Penn Yan, Seneca Castle, Phelps and Waterloo, recently met in that city and took up the matter of a cooperative plant. It is proposed to erect a plant of 60,000 barrel capacity with a capitalization of $200,000, to consist of $75,000 common stock and the balance of $125,000 in bonds and preferred stock.

The Salter Canning Company, of North Rose, which recently took over the plant of the Manchester Canning Company, is giving the plant a general overhauling under the management of J. F. Salter, and when the work is finished the plant will be modernized in every way. It is expected that the work will be finished in time for the berry and cherry season and when opened the plant will remain in operation until well along into the winter months. Contracts have been closed with the growers for full capacity of the plant.

Several hundred acres of muck soil in the town of Hastings will be improved and placed under cultivation as a result of a movement started among the swamp owners of that section. The work will be furthered under the direction of the Hastings Gardens Company. All the legal steps necessary to the work have been complied with and the promoters will begin work at once.

NEW YORK COUNTY NOTES

Saratoga Co.—Spring is cool and backward, with frost nearly every night. But few auctions and not many changes of farms this year. Farmers are getting along with their work without hired help. Veal calves bring 9 cents a pound, dressed veal 14 cents a pound. Spring pigs are selling from $5 to $6 per pair, eggs 28 cents a dozen wholesale. Butter by the jar, is bringing 49 to 50 cents per pound. More attention is being given to butter production this spring than for several years past. Good cows are in demand at satisfactory prices. Potato buyers are combing the county around here with auto trucks offering good prices for potatoes of good quality. Some cattle are now on pasture, looking well.—E. S. R.

Essex Co.—The great quantity of snow of the past winter disappeared quickly this spring and roads became settled more quickly than for several years. Farmers are planning on about the same acreage as last year. Some old hay on hand, brings $12 to $15 a ton; potatoes $1.25 a bushel; eggs 30 cents a dozen; dressed veal 14 cents. But little call for cows, or horses. Maple sugar is bringing 30 cents per pound. The maple crop was a small one, syrup $2 to $2.50 per gallon.—M. E. B.

Steuben Co.—It has been a very cold backward spring and farm work is behind. Scarcely any planting has been done. General conditions are very discouraging to the farmer who cannot produce at the present prices that labor demands and little help at that price. The railroads and road contractors have recently increased their wages for labor which makes it harder than ever for the farmer to get help. Eggs are 22 cents, butter 42 cents, wheat $1.40, potatoes 70 cents, veal 12 cents, maple syrup $2.50 a gallon, hay $12 a ton, oats 50 cents—C. H. E.

Cortland Co.—The cold weather has delayed spring work considerably. However, most farmers hereabouts have their oats sown. Fitting the ground for cabbage and corn is now in progress. Farmers have been having poor hatches so far. Eggs are fertile, but do not seem to hatch. Maple syrup has been selling for $1.75 a gallon, sugar at 30 cents a pound. Eggs are now bringing 28 cents.—G. A. B.

Advertisement

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 437, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

WALKER REMEDY CO., Dept. 437

Waterloo, Iowa

Send me the [ ] 50c regular size (or [ ] $1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfied in every way. I am enclosing 50c (or $1.00). (P. O. money order, check or currency acceptable.)

Name.....

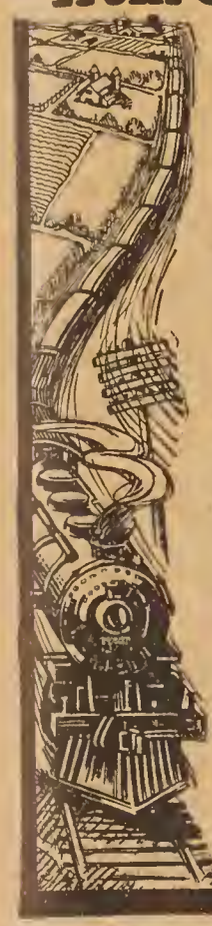
Town.....

State..... R. F. D.....

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

Advertisement

Opportunity Calls from CANADA



Visit Canada this summer—see for yourself the opportunities which Canada offers to both labor and capital—rich, fertile, virgin prairie land, near railways and towns, at $15 to $20 an acre—long terms if desired. Wheat crops last year the biggest in history; dairying and hogs pay well; mixed farming rapidly increasing.

Homeseekers' Rates on Canadian Railroads

If you wish to look over the country with a view to taking up land get an order from the nearest Canadian Government Agent for special rates on Canadian railroads. Make this your summer outing—Canada welcomes tourists—no passports required—have a great trip and see with your own eyes the opportunities that await you.

For full information, with free booklets and maps, write

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Can You Talk to Farmers?

We want to hire a few more reliable men who can talk convincingly to farmers about their great need of AMERICAN AGRICULTURIST.

If you are a retired farmer or inactive for any reason, this is a real opportunity to make a permanent and profitable connection.

Details on request. Write to-day.

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VEGETABLE PLANTS

26th YEAR. Cabbage and Snowball Cauliflower plants. Field grown. 2 acres. Ready: Cabbage, Early Jersey Wakefield, Copenhagen Market, Eukhuizen, Early Summer, All Head Early, Succession, Surehead, Early Flat Dutch, Late Flat Dutch. $2.25 per 1,000; 5,000, $10.00; 500, $1.50; 300, $1.00. Snowball Cauliflowers. $5.00 per 1,000; 500, $3.00; 300, $2.00; 200, $1.60; 100, $1.00. Tomato plants. Field grown. Bonny Best, John Baer, Matchless, Stone. $2.50 per 1,000; 500, $1.50; 300, $1.30; 200, $1.10; 100, 90c. List free. Parcels Post or Express. *No business done on Sundays.*

FORD W. ROCHELLE & SONS, Chester, New Jersey

Natural Leaf Tobacco Mild or Strong. Extra fine smoking 5 lbs. $1.25; 10, $2.00; 20, $3.60. PIPE FREE; Hand-Picked Chewing, 5 lbs. $1.50; 10, $2.50.
TOBACCO GROWERS' UNION, Murray, Ky.

BABY CHICKS

CHICKS for June and July Delivery

Our 19th Season producing good strong chicks from heavy-laying strains. S. C. White and Brown Leghorns, $9.50 per 100; Buff and Black Leghorns, $10 per 100; Barred and White Rocks, $12 per 100; Anconas, Black Minorcas, $11.50 per 100; White Wyandottes, R. C. Reds, $13 per 100. Mixed, $8.50 per 100. Order direct from this ad. We guarantee 95% live delivery. Catalogue free.

20th CENTURY HATCHERY
Box R New Washington, Ohio

750,000 CHICKS

$9.00 PER 100 AND UP. From Hogan-tested, well-kept, heavy-laying flocks. WH., BR., AND BUFF LEGHORNS, ANCONAS, 100, $11; 300, $32; 500, $52. BARRED ROCKS, REDS AND MINORCAS, 100, $13; 300, $38; 500, $62. BUFF ORPINGTONS, WHITE ROCKS AND WHITE WYAN., 100, $15 straight. Mixed Chicks, 100, $9 straight. Postpaid, full live delivery guaranteed. Order right from this ad. Free Catalog. Reference, 4 Banks.

TRI-STATE HATCHERIES, Box 510, ARCHBOLD, OHIO

BABY CHICKS Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 14c. each; White Wyandottes, 16c. each; White, Brown, Buff Leghorns, 12c. each; broilers, 8c. each. Pekin Ducklings, 30c. each. Safe delivery guaranteed by prepaid parcel post

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TIFFANY'S SUPERIOR CHICKS THAT LIVE
Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

Hampton's Black Leghorn Chicks
Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.
A. E. HAMPTON, Box A Pittstown, N. J.

LOOK CHIX 8c PURE-BRED QUALITY CHICKS
White and Brown Leghorns, 10c
Barred and White Rocks, - 12c
Reds, Anconas, Orpingtons, 13c
Mixed Heavy, 9c; Lights, 8c. Postage paid. Cat. Free.
J. W. HOUCK & CO., TIFFIN, OHIO

News From the Farmers

Of New Jersey and Pennsylvania

A NEW rate of membership dues has been adopted by the New Jersey State Holstein-Freisian Association, according to Secretary W. W. Wetmore of New Brunswick, N. J. Instead of a charge of $1 per cow per year a flat rate has been fixed of $10 for members having 20 Holsteins or less and $15 for those having over 20 cows. The new rate includes the $3 dues in the local association. The dairymen joining the State Association thus automatically become members of the county organization with paid-up dues in the County Association.

* * *

The Burlington County Holstein-Freisian Association will meet at Mount Holly, N. J., on May 26, when the Executive Committee will present its program of work for the year to the membership. At a recent meeting the following officers were elected: President, A. R. Jackson of Columbus; vice-president, C. H. Atkinson of Wrightstown; secretary-treasurer, Harvey Davis of Jobstown; Directors, Thomas Gauntt, Ernest Phillips, Frank Baycroft and Harry Davis, all of Jobstown, and Frank S. Banks of Medford.

* * *

The Belle Mead Bull Association held its first annual sale of Holsteins on the farm of J. V. D. Bergen, on May 17. Twelve consignors were listed among the Holstein owners. The annual sale of W. R. Spann of Morristown, N. J., will be held on May 31, at which time imported Jersey cattle will be offered.

Cooperation Pays Cannery Growers

The Six-County Tomato Growers' Association formed last fall by cannery growers in Mercer, Burlington, Camden, Gloucester, Cumberland and Cape May counties has made possible contracts of tomato growers with cannery men at $20 a ton, this price to hold for the entire season. Previous to the activities of the cannery growers the factories offered only $16 to $18 per ton delivered at the factories and $13 delivered at stations for shipping by freight. A large acreage of tomatoes is being set by growers in these counties, but considerably smaller than the acreage of previous years. The feeling is general that even at $20 a ton the growers will no more than make up for high labor costs this season.

Hon. Emmor Roberts, State Senator from Burlington County, has been elected a director in the New York-New Jersey Joint Stock Land Bank, which has headquarters in Newark. Senator Roberts is a large and successful farmer, President of the New Jersey State Horticultural Society, and Director in the Moorestown Trust Company. The Land Bank now has among its directors a representative from practically all of the leading farm organizations in New Jersey.—W. H. B.

NEW JERSEY COUNTY NOTES

Somerset Co.—The labor situation has become so difficult that a great many farms will be idle or only partly cultivated. With common labor receiving from 45 to 80 cents an hour it is impossible to attempt extensive farm operations. Many farmers formerly employing several men have cut down to what they can do themselves. Farm products are in good demand, bringing fair prices, but costs are not in proportion to prices. The severe fires that swept over parts of New Jersey this spring were extinguished by heavy rains. Thousands of acres of woodland and cultivated fields have been burnt over through the careless starting of brush fires.

There have been many orchards planted this year notwithstanding the constantly increasing cost of labor and maintenance. After several years, absence, tent caterpillars are unusually numerous this year. Poultrymen are complaining of poor hatches.—G. E. SCHWARTZ.

Warren Co.—Spring has been unusually cold. The grass is very short, wheat looks fair, corn coming up slowly and potatoes just breaking through. Little chicks are not as plentiful as last year, poultrymen report hatches of about 75 per cent normal. Fruit trees are full of blossoms. Strawberry beds looking good, well blossomed out.—MRS. J. R.

PENNSYLVANIA COUNTY NOTES

Cumberland Co.—We are having a very backward and cold spring in this county. Not much corn has been planted so far and there is much plowing to be done. The season is almost a month late, compared to other years and consequently farmers will have to feed a month longer than usual. We had a light fall of snow on the night of May 8. The month of April and early May was quite dry, but we have been getting some nice rains lately. Prospects are bright for fruit of all kinds. Very little damage done so far. Wheat and grass are very short. Not much stock being sold now. Sales have been well attend- and fair prices realized.—J. B. K.

Crawford Co.—Oats are out, all sown, ground in fine condition. Some corn ground plowed. Wheat and grass need rain. Up to the second week in May it was unusually dry for this time of the year. Eggs 23 to 27 cents, butter 45 to 50 cents, potatoes 70 cents a bushel at the car. Roads are good Work has begun on State road. Farm help very scarce.—J. F. S.

Tioga Co.—Spring very backward. Farmers obliged to feed stock later in the season than usual. Early sown oats are up and look fine. As a rule cows are in poor flesh. Butter 50 cents, potatoes $1.25 a bushel. Many farmers are out of hay. We have had hard frost up to May 15.—W. C. G.

PENN STATE RECEIVES GIFT OF CLYDESDALE MARES

J. N. Conyngham owner of Hayfield Farms, Wilkes-Barre, Pa., recently presented the Department of Animal Husbandry of the Pennsylvania State College with five Clydesdale mares to be used as a foundation for Clydesdale horses at the college. This donation includes two imported mares and three bred and raised at Hayfield Farms. The two imported mares are Rosebud of Warylip, bred by George Wilson of Warylip, Banff, Scotland, and Eva McGregor, bred by Alexander Wright of Upper Keith, Deskford, Cullen Banffshire, Scotland.

The home bred mares consist of two four-year olds, Diamond Queen and Hayfield Blossom, and one three-year old, Heather Blossom, all sired by Golden Knight. Two of these mares are bred to Langwater Fashion and due to foal this spring, while the other three mares were bred before they were shipped.

Mr. Conyngham has also loaned the College the two-year old stallion, Hayfield Barre.—W. S. TOMHAVE.

CENTRAL PENNSYLVANIA NOTES

J. N. GLOVER

There are still some oats to be seeded in this section. Considerable corn has been planted. The weather was very dry until May 8, when we had some good showers followed by snow on the 9th. It was accompanied by a cold wave that threatened fruit blossoms. Since these showers the soil is in good condition for plowing and planting, which will not be completed for at least two weeks. Wheat fields vary considerably in appearance.

Roads are being scraped and water courses cleared. Farmers are fixing up fences and generally cleaning up in odd moments.

The Dairymen's League is gaining strength in this section of the State. Very few fresh cows are for sale. Dry feed is plentiful and there will be hay to bale on many farms later on. Contrary to the rule, May wheat is lower than any time since January, while bran and middlings are high. Wheat is $1.32, corn 75 cents, oats 45 cents, eggs 22 cents, veal calves 11 cents.

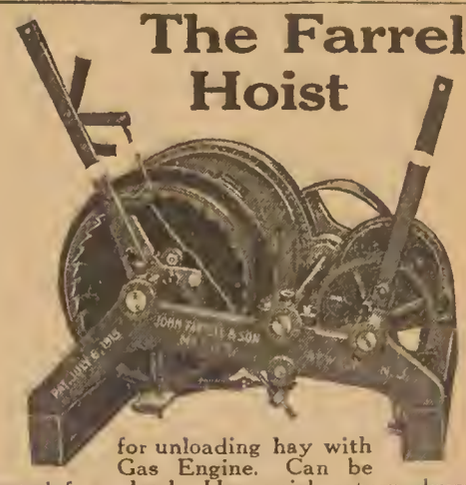
Farm Mortgages that die in 33 years

Under the government installment plan of reducing farm mortgage loans, your loan never comes due. With the last payment you have completely paid up principal and interest.

We are making these loans from $1,000 to $45,000 for thirty-three year periods. If you are interested, write us.

New York & Pennsylvania Joint Stock Land Bank
61 Broadway New York

The Farrell Hoist



for unloading hay with Gas Engine. Can be operated from load. Has quick return drum and band brake. Price right. For Circular address
JOHN FARRELL & SON, Newton, Sussex County, N. J.

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Steady running—Fast cutting—Practical—Durable. A Powerful Throttling Governor Engine—Non-Spill Water Hopper—Lever Control of saw. Tree Saw parts extra. A better rig at a lower price. Send for FREE Catalog today.

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You have never before been able to buy the famous Peerless Fence at such low prices—our new plan of selling direct from factory means
40 Per Cent LOWER PRICES
FREE New 104 page CATALOG—send for it today—see enormous saving on Fencing—Steel Posts—Barb Wire—Paint and Roofing. Satisfaction guaranteed.
PEERLESS WIRE & FENCE CO., Dept. 3004 CLEVELAND, OHIO

AN unobstructed continuous opening. Doors absolutely tight but will not swell. Permanent steel ladder attached to front. Everything first class and prices right. Liberal discount to reliable agents—Wanted in every town.

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HEAVES Is your own horse afflicted? Use 2 large cans. Cost $2.50.
Money back if not satisfactory
ONE can at $1.25 often sufficient. In powder form.

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Makes it easy to own a Galloway. Our terms suit your pocketbook, our special offer permits you to try it before you buy it. Write today.
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HIGH PRESSURE
NO GEARS NO CHAINS NO BELTS OR SPROCKETS
"FRIEND MFG. Co. GASPORT NY
YOU'LL ALWAYS BE GLAD YOU BOUGHT A FRIEND

THIS IS *YOUR* MARKET PLACE

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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion ls $1 per week.

Count as one word each initial, abbrevlation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

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Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

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To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

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Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

BRED TO LAY—Day-old chicks, S. C. White Leghorns: May, $15 per 100; June, $12 per 100. Barred Rocks, Reds, White Wyandottes: May, $18 per 100; June, $14 per 100. Eggs at $5 per 100. Giant Pekin Duckling, 25 cents each. Eggs, $1.50 per 11. All orders postpaid. P. H. PORAY, R. 2, Williamson, N. Y.

FOR HIGH EGG PRODUCTION buy your S. C. White Leghorn day-old chicks from best of stock, bred and culled for vigor, size, and egg-laying qualities; $20 per 100; June, $15 per 100, postpaid. GEO. H. PRICE, Box 450, Stamford, N Y.

CHICKS—White Wyandotte, S. C. White Leghorn. Pure-bred stock. 100% delivery guaranteed. Can take some orders for immediate delivery, Wyandotte $14, Leghorn $12 per hundred. ULSH POULTRY FARM, Port Trevorton, Pa.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

BROTHER—We make a specialty of S. C. W. Leghorn Chicks, bred with the winter lay, farm raised; circular free. OAK HILL POULTRY FARM, Route 2 B, Bath, N. Y.

TEN CHOICE BOURBON RED Turkey Eggs, $5. From pure-bred free range birds. Order from this. GEO. LEHMAN, Amaranth, Pa.

$8 PER 100 BABY CHICK EGGS; $1 setting. Catalogue — 12 leading varieties. EMPIRE HATCHERY, Seward, N. Y.

THOMPSON RINGLET ROCK EGGS — 15 eggs for $2.25. Address ROY HILTS, Gouverneur, N. Y.

RING-NECK PHEASANT EGGS — $3 per 15. Postpaid. JOHN LEWIS, Okolona, Ohio.

FEMALE HELP WANTED

WANTED—Girl for general housework; good wages. MRS. C. A. SMITH, R. D. 5, Fort Plain N. Y.

SEEDS AND NURSERY STOCKS

CABBAGE AND TOMATO PLANTS—Field grown, any variety, wholesale and retail, 50 cents per 100; $1 per 300; $1.75 per 500; $2.25 per 1,000, postpaid. Special prices in large quantities. Satisfaction guaranteed or money refunded. THE DIXIE PLANT COMPANY, Franklin, Va.

CABBAGE AND TOMATO PLANTS — Any variety, field grown, 50 cents per 100; $1 per 300; $1.75 per 500; $2.25 per 1,000, postpaid. Special prices in thousand lot shipments by express. RIVERSIDE PLANT FARM, Franklin, Virginia.

CABBAGE, CELERY — Ready for field, $1.25 per 1,000; beet, onion, lettuce, strong plants, $1 per 1,000; tomato, all kinds, $2 per 1,000; cauliflower, peppers, egg plants, $3 per 1,000. Send for list. J. C. SCHMIDT, Bristol, Pa.

4,000,000 SWEET POTATO PLANTS—Yellow Jersey, Gold Skin, Big Leaf, Up River, Red Nansemond. At $1.50 per 1,000. C. E. BROWN, Bridgeville, Del.

SURPLUS CANNAS, DAHLIAS—Per dozen, $1; Gladiolus, per dozen 25 cents; assorted tubers from 100 kinds. SHELLROAD GREENHOUSES, Colgate, Md.

FOR SALE—Strawberry plants, Steven Late Champion and Uncle Jim. Order now at $4 per thousand. DONALD EMERY, Centereach, N. Y.

BEES

WILLONDELL ITALIAN 3 BAND Bees and Queens are good bees that bring results. With queens, 2 frame nuclei, $4; 3 frame, $5.25; jumbo frames, 50 cents; extra queens, $1.25 each. H. S. OSTRANDER, Mellenville, N. Y.

HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, Roxbury, N. Y.

TURKEYS

TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point. Ohio.

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S. C. White and Brown Leghorns.....10c each
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Order June Chicks Now *at these Rock Bottom Prices*

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S. C. W. Leghorns	$3.25	$5.00	$10.00
Barred Rocks	4.00	7.00	14.00
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500 chicks one-half cent per chick less. Every chick guaranteed from healthy, vigorous free range stock. Post paid. Safe delivery guaranteed.

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S. C. W. Leghorns exclusively. Extra fine large May Chicks $18 per hundred. June Chicks $15 Free delivery and satisfaction guaranteed. **FEEK'S WHITE LEGHORN FARM, CLYDE, NEW YORK**

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We are going to offer as A SPECIAL! 25,000 Day-Olds, from our selected matings, for June Delivery

	Per 100	Per 50	Per 25
S. C. W. Leghorns	$10.50	$5.50	$3.00
Barred Rocks	15.00	8.00	4.50
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We guarantee 100% live arrival, full count. Parcel post paid. Order at once; don't delay and be disappointed at such low prices for SELECTED STOCK. Send P. O. Money Order or Check in full remittance.

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These chicks are all hatched from free range stock. Safe delivery and satisfaction guaranteed. Descriptive booklet free. Chicks at the above prices to be delivered May and June. **W. A. LAUVER, McALISTERVILLE, PA.**

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NABOB HATCHERIES, Box A5 Gambier, Ohio

The Brown Mouse—*By Herbert Quick*

JIM shoveled on silently for a while, and by example urged Newton to earn the money credited to his father's assessment for the day's work.

"Aw, what's the use of diggin' into it like this?" protested Newton, who was developing an unwonted perspiration. "None of the others are heatin' themselves up."

"Don't you get any fun out of doing a good day's work?" asked Jim.

"Fun!" exclaimed Newton. "You're crazy!"

A slide of earth from the top of the pit threatened to bury Newton in gravel, sand and good top soil. A sweet-clover plant growing rankly beside the pit, came down with it, its dark green foliage anchored by the long roots which penetrated to a depth below the gravel pit's bottom. Jim Irwin pulled it loose from its anchorage, and after looking attentively at the roots, laid the whole plant on the bank for safety.

"What do you want of that weed?" asked Newton.

Jim picked it up and showed him the nodules on its roots—little white knobs, smaller than pinheads.

"Know what they are, Newt?"

"Just white specks on the roots," replied Newton.

"The most wonderful specks in the world," said Jim. "Ever hear of the use of nitrates to enrich the soil?"

"Ain't that the stuff the old man used on the lawn last spring?"

"Yes," said Jim, "your father used some on his lawn. We don't put it on our fields in Iowa—not yet; but if it weren't for those white specks on the clover-roots, we should be obliged to do so—as they do back east."

"How do them white specks keep us from needin' nitrates?"

"It's a long story," said Jim. "You see, before there were any plants big enough to be visible—if there had been any one to see them—the world was full of little plants so small that there may be billions of them in one of these little white specks. They knew how to take the nitrates from the air—"

"Air!" ejaculated Newton. "Nitrates in the air! You're crazy!"

"No," said Jim. "There are tons of nitrogen in the air that press down on your head—but the big plants can't get it through their leaves, or their roots. They never had to learn, because when the little plants—bacteria—found that the big plants had roots with sap in them, they located on those roots and tapped them for the sap they needed. They began to get their board and lodging off the big plants. And in payment for their hotel bills, the little plants took nitrogen out of the air for both themselves and their hosts."

"What d'ye mean by. 'hosts'?"

"Their hotel-keepers—the big plants. And now the plants that have the hotel roots for the bacteria furnish nitrogen not only for themselves but for the crops that follow. Corn can't get nitrogen out of the air; but clover can—and that's why we ought to plow down clover before a crop of corn."

"Gee!" said Newt. "If you could get to teach our school, I'd go again."

"It would interfere with your pool playing."

"What business is that o' yours?" interrogated Newt defiantly.

"WELL, get busy with that shovel," suggested Jim, who had been working steadily, driving out upon the fill occasionally to unload. On his return from dumping the next load, Newton seemed, in a superior way, quite amiably disposed toward his workfellow—rather the habitual thing in the neighborhood.

"I'll work my old man to vote for you for the job," said he.

"What job?" asked Jim.

"Teacher for our school," answered Newt.

"Those school directors," replied Jim, "have become so bullheaded that they'll never vote for any one except the applicants they've been voting for."

"The old man says he will have Prue Foster again, or he'll give the school a darned long vacation, unless Peterson and Bonner join on some one else. That would beat Prue, of course."

"And Con Bonner won't vote for any one but Maggie Gilmartin," added Jim.

"And," supplied Newton, "Haakon Peterson says he'll stick to Herman Paulson until the Hot Springs freeze over."

"And there you are," said Jim. "You tell your father for me that I think he's a mere mule—and that the whole district thinks the same."

"All right," said Newt. "I'll tell him that while I'm working him to vote for you."

Jim smiled grimly. Such a position might have been his years ago, if he could have left his mother or earned enough in it to keep both alive. He had remained a peasant because the American rural teacher is placed economically lower than the peasant. He gave Newton's chatter no consideration. But when, in the afternoon, he hitched his team with others to the big road grader, and the gang became concentrated within talking distance, he found that the project of heckling and chaffing him about his eminent fitness for a scholastic position was to be the real entertainment of the occasion.

"Jim's the candidate to bust the deadlock," said Columbus Brown, with a wink. "Just like Garfield in that Republican convention he was nominated in—eh, Con?"

"Con" was Cornelius Bonner, an Irishman, one of the deadlocked school board, and the captain of the road graded. He winked back at the pathmaster.

"Jim's the gray-eyed man o'destiny," he replied, "if he can get two votes in that board."

"You'd vote for me, wouldn't you, Con?" asked Jim.

"I'll try anything wance," replied Bonner.

"Try voting with Ezra Bronson once, for Prue Foster," suggested Jim. "She's done good work here."

"Opinions differ," said Bonner, "an' when you try anything just for wance, it shouldn't be an irrevocable shtip, me bye."

"You're a reasonable board of public servants," said Jim ironically. "I'd like to tell the whole board what I think of them."

"Come down to-night," said Bonner jeeringly. " We're going to have a board meeting at the schoolhouse and ballot a few more times. Come down, and be the Garfield of the convintion. We've lacked brains on the board, that's clear. They ain't a man on the board that iver studied algebra, 'r that knows more about farmin' than their impl'yers. Come down to the schoolhouse, and we'll have a field-hand addriss the school board—and begosh, I'll move yer illiction mesilf! Come, now, Jimmy, me bye, be game. It'll vary the program, annyhow."

The entire gang grinned. Jim flushed, and then reconquered his calmness of spirit.

"All right, Con," said he. "I'll come and tell you a few things—and you can do as you like about making the motion."

CHAPTER II

REVERSED UNANIMITY

THE great blade of the grading machine, running diagonally across the road and pulling the earth toward its median line, had made several trips, and much persiflage about Jim Irwin's forthcoming appearance before the board had been addressed to Jim and exchanged by others for his benefit.

To Newton Bronson was given the task of leveling and distributing the earth rolled into the road by the grader—a labor which in the interests of fitting a muzzle on his big mongrel dog he deserted whenever the machine moved away from him. No dog would have seemed less deserving of a muzzle, for he was a friendly animal, always wagging his tail, pressing his nose into people's palms, licking their clothing and otherwise making a nuisance of himself. That there was some mystery about the muzzle was evident from Newton's pains to make a secret of it. Its wires were curled into a ring directly over the dog's nose, and into this ring Newton had fitted a cork through which he had thrust a large needle which protruded, an inch-long bayonet, in front of Ponto's nose. As the grader swept back, horses straining, harness creaking and a billow of dark earth rolling before the knife, Ponto, fully equipped with this stinger, raced madly alongside, a friend to every man, but not unlike some people, one whose friendship was of all things to be most dreaded.

As the grader moved along one side of the highway, a high-powered automobile approached on the other. It was attempting to rush the swale for the hill opposite, and making rather bad weather of the newly repaired road. A pile of loose soil that Newton had allowed to lie just across the path made a certain maintenance of speed desirable. The knavish Newton planted himself in the path of the laboring car, and waved its driver a command to halt. The car came to a standstill with its front wheels in the edge of the loose earth, and the chauffeur fuming at the possibility of stalling—a contingency upon which Newton had confidently reckoned.

"What d'ye want?" he demanded. "What d'ye mean by stopping me in this kind of place?"

"I want to ask you," said Newton with mock politeness, "if you have the correct time."

THE chauffeur sought words appropriate to his feelings. Ponto and his muzzle saved him the trouble. A pretty pointer leaped from the car, and attracted by the evident friendliness of Ponto's greeting, pricked up its ears, and sought, in a spirit of canine brotherhood, to touch noses with him. The needle in Ponto's muzzle did its work to the agony and horror of the pointer, which leaped back with a yelp, and turned tail. Ponto, in an effort to apologize, followed, and finding itself bayonetted at every contact with this demon dog, the pointer definitely took flight, howling, leaving Ponto in a state of wonder and humiliation at the sudden end of what had promised to be a very friendly acquaintance. The pointer's master watched its strange flight, and swore. His eye turned to the boy who had caused all this, and he alighted pale with anger.

"I've got time," said he, remembering Newton's impudent question, "to give you what you deserve."

Newton grinned and dodged, but the bank of loose earth was his undoing, and while he stumbled, the chauffeur caught and held him by the collar. And as he held the boy, the operation of flogging him in the presence of the grading gang grew less to his taste. Again Ponto intervened, for as the chauffeur stood holding Newton, the dog, evidently regarding the stranger as his master's friend, thrust his nose into the chauffeur's palm—the needle necessarily preceding the nose. The chauffeur behaved much as his pointer had done, saving and excepting that the pointer did not swear.

It was funny—even the pain involved could not make it otherwise than funny. The grading gang laughed to a man. Newton grinned even while in the fell clutch of circumstance. Ponto tried to smell the chauffeur's trousers, and what had been a laugh became a roar.

Caution and mercy departed from the chauffeur's mood; and he drew back his fist to strike the boy—and found it caught by the hard hand of Jim Irwin.

"You're too angry to punish this boy," said Jim gently—"even if you had the right to punish him at all!"

"Oh, cut it out," said a fat man in the rear of the car. "Get in, and let's be on our way!"

The chauffeur, however, recognized in a man of mature years and full size, a relief from his embarrassment. He released Newton, and blindly, furiously, he delivered a blow meant for Jim's jaw, but which miscarried by a foot. In reply, Jim countered with an awkward swinging uppercut, which was superior to the chauffeur's blow in one respect only—it landed fairly on the point of the jaw. The chauffeur staggered and slowly toppled over into the soft earth. Newton Bronson slipped behind a hedge, and took his infernally equipped dog with him. The grader gang formed a ring about the combatants and waited. Colonel Woodruff, driving toward home in his runabout, held up by the traffic blockade, asked what was going on, and the chauffeur, rising groggily, picked up his goggles, climbed into the car; the meeting dissolved, leaving Jim Irwin greatly embarrassed by the fact that for the first time in his life he had struck a man in combat.

"Good work, Jim," said Cornelius Bonner. "I didn't think 'twas in ye!"

"It's beastly," said Jim, reddening. "I didn't know, either."

Colonel Woodruff looked at his hired man sharply, gave him some instructions for the next day and drove on. The road gang dispersed for the afternoon. Newton Bronson carefully secreted the magic muzzle, and chuckled at what had been perhaps the most picturesquely successful bit of deviltry in his varied record. Jim Irwin put out his team, got his supper and went to the meeting of the school board.

The deadlocked members of the board had been so long at loggerheads that their relations had swayed back to something like amity. Jim had scarcely entered when Con Bonner addressed the chair.

"Mr. Prisidint," said he, "we have wid us t'night, a young man who nades no introduction to an audience in this place, Mr. Jim Irwin. He thinks we're bullheaded mules, and that all the schools are bad. At the proper time I shall move that we hire him f'r teacher; and pinding that motion, I move that he be given the floor."

Much laughter from the board and the spectators, as Jim arose. He looked upon it as ridicule of himself, while Con Bonner regarded it as a tribute to his successful speech.

"Mr. President and Gentlemen of the Board," said Jim, "I'm not going to tell you anything that you don't know about yourselves. You are simply making a farce of the matter of hiring a teacher for this school. It is not as if any of you had a theory that the teaching methods of one of these teachers would be any better than or much different from those of the others. You know, and I know, that whichever is finally engaged, or even if your silly deadlock is broken by employing a new candidate, the school will be the same old story. It will still be the school it was when I came into it a little ragged boy"—here Jim's voice grew a little husky—"and when I left it, a bigger boy, but still as ragged as ever."

There was a slight sensation in the audience, as if, as Con Bonner said about the knockdown, they hadn't thought Jim Irwin could do it.

"Well," said Con, "you've done well to hold your own."

"In all the years I attended this school," Jim went on, "I never did a bit of work in school which was economically useful. It was all dry stuff copied from the city schools. No other pupil ever did any real work of the sort farmers' boys and girls should do. We copied city schools—and made bad copies of them, too."

Jim Irwin made a somewhat lengthy speech after the awkwardness wore off, so long that his audience was nodding and yawning by the time he reached

(*Continued on page* 460)

HOW THE STORY STARTED

JIM IRWIN, Col. Woodruff's field-hand was somewhat despised because his "book learning" did not raise him above the level of a farm laborer. Jennie Woodruff was especially scornful, and let her old school fellow see it. Her distain hurt him, for he felt sure his theories of practical education were right. Meanwhile, he worked on the road with others of the locality, among them young Newton Bronson, rapidly developing into a township problem.

"The Other View"—A Story by Lillian Davidson

Keeping City Boarders This Summer Will Pay—A Cross-Stitch Towel for the Guests Room

MRS. HARPER sighed. She was looking out into a green, grassy yard, with a white picket fence, a few beehives, and some morning-glories on the fence. Not a bad-looking yard, for big trees kept the sun away almost all day, and everything was as neat as possible. Still she sighed.

" 'Lias," she said, "I do wish I could have such a back yard as I saw at that house—when I went to Sarah's—it was the prettiest place I ever saw."

'Lias Harper fidgeted his feet a bit, "Wish't I could see it, you've said so much about it. I don't know where it can be, though. I thought I knew every farm within twenty miles. Was it a big white house—bigger'n this?"

"Yes, it was, a nice big house, tall and painted beautiful. And it had noble big trees in the back yard, and in the front yard too, I think. Trees lots bigger'n than ours. Oh yes, a lot bigger. And I know the water there must be soft, for there was a tea towel or something hanging on the clothes line, and 'Lias, it was white as snow. I never can get mine like that with the hard water here." And she looked towards the line in the yard.

"Now, Lucy, you've got a nice white dish towel on your line, and you've a tall house, and big trees. I don't believe," doggedly, "there's a prettier place in the country than this."

The railroad near them had just been completed, and Mrs. Harper had recently taken her first trip over it. In order to reach the station, they had to drive about five miles, but in making a curve, the road ran just the other side of a forty-acre field from their home. Ever since Mrs. Harper's return, she had described a farm house so very beautiful that she longed to live in it. She had spoken of the white fence, the tall trees, the house, the hollyhocks, the vines, until her husband was getting a little out of patience.

The next day, 'Lias returned from town seeming very much elated.

"Lucy," he said, "I do believe I know where your nice farm house is—I do, by dacky! It ain't so awful far away. I guess we can go out and see it about—le's see—about Friday. Can you get away then?"

"INDEED I can, 'Lias. I'd leave my work any time to see that grand place again. Can we drive over?"

"No, we'll go on the cars—that's the best way. You said there was a bridge, didn't you, where the railroad crossed a river?"

"Yes, a nice big river, too. Wider and bigger than this little muddy stream. It was a long bridge—and there was some men working there."

"Well, Lucy, I guess we'll lay off and go over Friday."

"But 'Lias, if I see that place again, I'll feel worse than ever to live here in this little low house—I'll want that place worse than ever—" and she sighed again.

"I'll get it for you, Lucy, if it's where I think it is. I believe I'd like to live in that place too," and he went out chuckling.

The train they took was a freight. 'Lias said it would stop at the bridge, so they could get off.

"How in the world will we get home, 'Lias?" asked Mrs. Harper.

"You never mind—we'll get home. Don't we always get home?" he teased.

The freight traveled slowly, but finally Mrs. Harper pointed in excitement.

"There it is," she said, "ain't it the grandest looking place? See the towering trees, and that green back yard with the white picket fence, and the morning glories. I do know it is the prettiest place in the country—"

"Now Lucy! Don't jump off before the cars stop, there—we're stopping now."

The trainman helped them off, and he and 'Lias exchanged a sly wink. The scramble down the grade was rather hard for Mrs. Harper, but she was too excited to care, and she also crawled through a wire fence, a thing she had always said she could not do. Then she straightened up, and took a good look. The alfalfa field took her eye first.

"Now ain't this the best alfalfa you ever seen, 'Lias? Why, it's inches higher than ours—and look how even! Better ground, I think. I wonder if these folks will care for us coming right up to the house this way?"

"Not a mite," said 'Lias, "I've got that all fixed."

"My, my—" broke out Mrs. Harper, "What noble big trees right over the back door! Shady all day, and such a good back yard to work in—a thing I've always wanted. 'Lias, do see them beehives, white as marble! The man who lives here is a good manager, I'll bet."

"Well, I think he is," said 'Lias dryly.

"Look at the morning-glories—I do love them and we never have any luck with them. And what a nice big house—I'll wager the chambers upstairs are nice and high" she spoke in a low voice, as if fearing to be overheard. "Now look at that tea towel. 'Lias, I can't get mine white like that in hard water."

She broke off with a startled look, " 'Lias,"—she stammered, "Why, there's my old washing machine—and the old hickory chair. . . ."

" 'Lias Harper—" looking around—"Why this is our own house—and you knowed it all the time—and you just did this to fool me! Well I swan!" and she hurried through the kitchen door.

'Lias sank down in the old hickory chair.

"Distance makes things look a heap bigger—and then, the other view makes a difference too. Guess Lucy'll be satisfied now, though," and he smiled a slow smile.

KEEPING CITY BOARDERS

I have often read in your paper arguments in favor of remaining on the farm, and I say "aye." The farm every time! A good living can be had from chickens and a cow or two; but if the farmer's wife wants to help along still more, let her take a few city boarders. I have done so for the past few years and I know there is money in it.

Start early in the spring to prepare for them. Plant a large garden with all the different kinds of vegetables not forgetting brussels sprouts, spinach, kohl-rabi, swiss chard and cauliflower for you will find a few who will like these as well as peas, beans, corn, or tomatoes.

Fix the house and grounds as attractively as possible without going to any great expense. Paint all the floors or cover with linoleum. If you use paint, use a russet color and then add two coats of varnish. They will be much easier to clean than rugs or carpets.

Put up little sash curtains at your bedroom windows, and place in each bedroom a dresser, two chairs and above all, a comfortable bed. If there is no clothes closet, put some hooks on the door, or place a curtain across the corner of the room with a few hooks in the wall behind it.

Furnish your living room comfortably but keep it plain, taking out all bric-a-brac. Have plenty of rockers on the porch and swings, etc., in the yard.

The Food is Very Important!

Now for the "eats!" First, keep your table cloth spotless. Use paper napkins, fold them three cornered and place a dozen or so in a large glass or other holder on each end of the table. Our boarders like these better than cloth napkins. Put a piece of butter and a slice of bread on a bread and butter plate at each place. Serve the meat and potatoes on the large plates from the kitchen. Serve all juicy vegetables in individual dishes and all others in large dishes.

For breakfast have eggs in some form and about twice a week serve meat instead. Besides eggs, we give a choice of two cereals, one cooked and one uncooked, toast and plain bread, coffee, and fruit, either fresh or stewed. For dinner, at noon, serve soup, meat, two vegetables and dessert and coffee, For supper have cold meat, a vegetable, a salad, fruit, cake and tea. Be sure to serve a variety. Never serve the same meat or dessert two days in succession, and the same applies to all vegetables except corn. City people are very fond of sweet corn and you cannot serve it too often, but you must serve other vegetables with it.

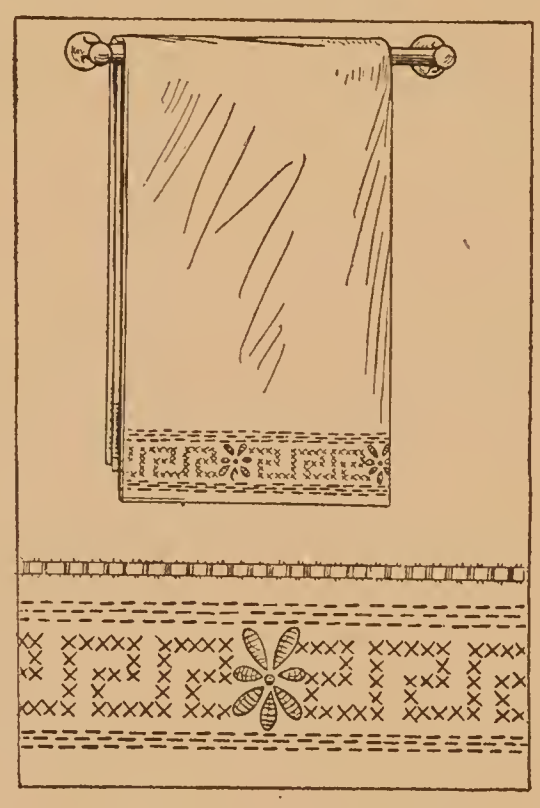
Don't try to keep less then ten boarders, it will not pay.

If you have a daughter or son to help you, you will find you can do the work for ten or twelve. Of course it will mean hard work, but plan your meals and your work ahead. Get up early and have all your baking for the day done before you serve breakfast and it will help you wonderfully. There will always be some women among your guests who will help you wash the dishes and other light work, taking care of their rooms and getting vegetables ready. Don't try to do any extra housework or sewing, just do what is most necessary. If you are strong and healthy the work won't be too hard. —MRS. EMMA DENTON.

AN EASY TOWEL TO MAKE

Every woman takes pride in having pretty towels on her rack when guests come, and fortunately this is a sort of embroidery which takes very little time and yet shows more effectively than almost any other article on which handwork can be put.

The design which is shown this week calls for both cross-stitch and solid (or



eyelet) work. It is bordered by an in-and-out running stitch which is easy to do, yet adds character to the final effect.

Double hemstitching is illustrated as a method of hemming the towel. Stamp your design so that an equal length of material is left below the part to embroider. After working the design, fold this over to make the hem and in this way the back of the towel does not show the unattractive wrong side of the embroidery. Then crease the lower edge of your hem, draw about five threads of material as indicated for hemstitching, and finish.

The other end of the towel may be left plain or have a simple cross-stitch border, the transfer for which is furnished with the more elaborate one.

E 11—cross-stitch towel design, 2 ends, will be sent for **12c. in stamps**. Address Handicraft Department, American Agriculturist, 461 Fourth Avenue, New York City.

"GOULASH"

This is a recipe especially for those who do not know what to do with little leftovers. First, if you have the broth from cooked, fresh meat and do not wish to make gravies of it, you can use it with the leftovers.

If you have a bowl of chicken or beef gravy, put it in a pan or if you have a little of each put in pan together. Have you a cold boiled potato or two? If so, dice them and add, and a saucer of peas and beans and corn, and a small piece of beef, chopped fine, a stalk of celery minced, a cup of boiled rice or macaroni. Then add 1 pint to 1 quart of tomatoes, stir and let it be simmering on one side of the stove. Now mince fine an onion as large as an egg. Cover with water and add a small pinch of soda. Cook about ten minutes. Pour this in with the rest and let all boil up. It may need a little seasoning and may not. Serve hot, of course, in individual dishes.

Say nothing of what it is to your family, and if everything is good, they will pronounce it delicious.—MRS. IDA A. BROWN.

The Brown Mouse

(*Continued from page* 459)

his peroration, in which he abjured Bronson, Bonner and Peterson to study his plan of a new kind of rural school—in which the work of the school should be correlated with the life of the home and the farm. Three sharp spats of applause from the useless hands of Newton Bronson gave the final touch of absurdity to a situation which Jim had felt to be ridiculous all through. Had it not been for Jennie Woodruff's "Humph!" stinging him to do something outside the round of duties into which he had fallen, had it not been for the absurd notion that perhaps, after they had heard his speech, they would place him in charge of the school, he would not have been there. As he sat down, he felt himself a silly clodhopper filled with the east wind of his own conceit, out of touch with the real world of men. The nodding board of directors, the secretary, actually snoring, and the bored audience restored the field-hand to a sense of his proper place.

"We have had the privilege of list'nin'," said Con Bonner, rising, "to a great speech, Mr. Prisidint. We should be proud to have a borned orator like this in the agricultural pop'lation of the district. A reg'lar William Jennin's Bryan. I don't understand what he was trying to tell us, but sometimes I've had the same difficulty with the spaches of the Boy Orator of the Platte. Makin' a good spache is one thing, and teaching a good school is another, but in order to bring this matter before the board, I nominate Mr. James E. Irwin, the Boy Orator of the Woodruff District, and the new white hope, f'r the job of teacher of this school, and I move that when he shall have received a majority of the votes of this board, the secretary and prisidint be insthructed to enter into a contract with him f'r the comin' year."

The seconding of motions on a board of three has its objectionable features, since it seems to commit a majority of the body to the motion in advance. The president, therefore, followed usage, when he said—"If there's no objection, it will be so ordered. The chair hears no objection—and it is so ordered. Prepare the ballots for a vote on the election of teacher, Mr. Secretary. Each votes his preference for teacher. A majority elects."

FOR months, the ballots had come out of the box—an empty crayon-box—Herman Paulson, one; Prudence Foster, one; Margaret Gilmartin, one; and every one present expected the same result now. There was no surprise, however, in view of the nomination of Jim Irwin by the blarneying Bonner when the secretary smoothed out the first ballot, and read: "James E. Irwin, one." Clearly this was the Bonner vote; but when the next slip came forth, "James E. Irwin, two," the Board of Directors of the Woodruff Independent District were stunned at the slowly dawning knowledge that they had made an election! Before they had rallied, the secretary drew from the box the third and last ballot, and read, "James E. Irwin, three."

President Bronson choked as he announced the result—choked and stammered, and made very hard weather of it, but he went through with the motion.

"The ballot having shown the unanimous election of James E. Irwin, I declare him elected."

(*To be continued next week*)

Children's Clothes Should Suit Them

Fashion and Cookery Hints—Help the League Milk Survey

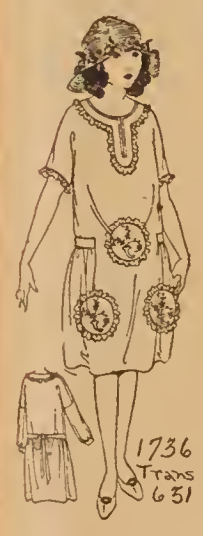
THE mother who makes her children's clothes has the satisfaction of having them wear longer than any she could buy readymade, while she also often hears the neighbors comment on how prettily the children are dressed.

American Agriculturist children's styles are planned for the farm woman who doesn't want to fall behind her city sister in having attractive clothes for her children, yet who has to remember expense and wearing quality. The fashion editor is always glad to have mothers write her for advice about their own clothes or those for the children and will gladly suggest designs, colors and materials. Enclose a stamped, self-addressed envelope for the reply.

Long-waisted styles are most becoming to the little girl and while **No. 1649** is suitable for all little girls, it is especially good for the one who is perhaps a bit too plump. The sleeves are cut in one with the back and side front, so it is very easy to make. The front panel extends into a tie-sash. Only 1⅞ yards of 36-inch are necessary for the 4 year size.

No. 1649 comes in sizes 4, 6, 8, and 10 years. **Price, 12c.** Transfer 622 in blue, 12c.

The most important thing in a little boy's life is play and so one of the most important things to have for him is a good play suit. And here it is! You could use denim, chambray, madras or any durable wash material for this suit. **No. 1681** cuts in sizes 2, 4, 6 and 8 years. For size 4 only 1½ yards of 36-inch material is needed. Price 12c. stamps.



Then for the slim girl, **No. 1736** gives a fluffy, soft effect which is very becoming. The delicate ruffles and lace or embroidery inserts make this frock suitable for parties and Sunday wear. If you embroider it, use transfer 631, which is 12c. extra. Pattern 1736 comes in sizes 3, 10, 12, and 14 years. For an 8 year size 1⅞ yards of 36-inch material is required. **Price 12c.** stamps.

To Order: Write all information clearly, enclose stamps for correct amount, mail to the Fashion Department, American Agriculturist, 461 Fourth Avenue, New York City.

If you add 10c., a copy of our new summer catalogue, brimful of pretty and practical suggestions will be added to your order. It is worth many times the cost and we advise you not to be without a copy.

USE MORE VEGETABLES

ALICE MARGARET ASHTON

"What's the use of our making a garden?" the man-of-the-house frequently grumbled. "We never eat what we raise."

"I know we ought to use more vegetables," I always was forced to admit. "But so often a meal is prepared in a hurry and there isn't time to gather and prepare them. Getting vegetables from the garden and washing the root varieties is messy too, especially after I've donned a clean dress or white shoes."

Neighboring housewives admitted that they had much the same experience. I resolved to find a remedy.

Early in the day I go to the garden or to the vegetable cellar, according to the season, and choose a plentiful supply for the day's use. Root vegetables are at once thoroughly washed and placed in a wire drainer. With the vegetables at hand and clean, I find double the uses for them that I did when each variety must be separately brought from garden or cellar as needed.

Clean Many at a Time

Another great convenience in the use of root vegetables consists in cleaning a quantity at one time. When a basket of potatoes are dug, carry them at once to an outdoor faucet or pump and thoroughly wash them all. A wire basket or rack is fine for draining them. During winter I have a basketful brought from the cellar at one time, and wash them all in the same way. It certainly is a joy when they are needed in a hurry to find them clean and ready for use. Other roots may be handled in the same way, though in smaller amounts.

An excellent way to clean root vegetables is to dampen a very coarse sack, pour in the roots and shake them about vigorously. When poured out into water it will be found that this saves a great amount of work with the cleaning brush. Turn the sack inside out, rinse and dry.

Another short-cut in the use of vegetables consists in cooking enough at one time for several servings. This does not mean a monotonous diet, either. Beets may be buttered at the first serving, pickled for the next day and what are left after this used in a vegetable salad on the third. Left-over corn, cut from the cob may be creamed, or used in fritters or croquettes.

MILK SURVEY UNDER WAY

How much milk does your family drink?

You had better begin to calculate now if you haven't an exact idea, for a nutritional study is planned for several up-State counties, and both school children and adults are being called upon for information on their use of dairy products.

Miss Laura C. Cauble, director of nutrition of the Dairymen's League, has already visited some of the counties where the survey has started. When the work is thoroughly under way the list will include Tioga, Ontario, Tompkins, Orleans, Jefferson, Delaware, Wyoming, Niagara, Otsego and Warren counties.

Cooperating in the work of the survey are the State Federation of Home Bureaus, the Extension Service of Cornell, and the State Department of Education. The returns will be tabulated after the work is completed, which should be about June 15.

In the classrooms the children will be called upon to answer a few simple questions about their food habits, while the parents are asked for somewhat more detailed information.

The facts thus gathered will be of the utmost service to the Home Bureaus and the college in planning extension work and will also be widely used by the State Department of Education through its health service. The counties chosen, partly for geographical reasons, were also selected because they are representative of the entire State. Several are large dairy centers, while others combine city population with country.

So if the white and buff cards come around in your locality, fill them out as carefully as possible and help the good work along!

HANGING UP A RECORD

DURING the last year, the American Agriculturist fashion department sold more than 24,000 patterns.

That means that from our 120,000 readers an average of one in five used our pattern service.

We believe that this is an exceptional record. We are trying to show up-to-date, smart styles, which yet can easily be made by the home dressmaker. We believe that it is just as easy to make a pretty dress as an ugly one—and much easier to wear it, whether for work or play!

Home-dressmaking has not always been as easy as it is now. Think of the days of whalebones, gored skirts, infinite ruffles and clumsy heavy materials! The farm woman is mercifully freed from the old style of tightly fitted, uncomfortable clothing. Present styles seem just made for her and she is short-sighted if she does not take advantage of them to provide herself with suitable, becoming dresses at small cost.

Even the children can help nowadays, and high-school girls everywhere are making their own clothes from the first step to the last. The ready-mades can never equal home sewing for personality, good materials and careful work. We are proud of the large number of readers who do their own dressmaking and welcome others who are just beginning to see its possibilities into our big A. A. sewing circle.

OUR FRIENDLY NEIGHBOR

A Story for the Children

My dear Boys and Girls: This little story about Mrs. Robin is true; it happened exactly as I am telling it to you.

On the west side of our house is a lovely old crab apple tree, not of much use so far as the apples are concerned, but worth a fortune when it is one great bouquet of blossoms, with honey bees by the hundred buzzing about in it, and, too, it is very useful as a home for the birds.

One year a very clever Mrs. Robin chose a forked limb in it for her home. When first we saw her—or heard her, for there was no joke about the noise she was making—she was flying against Junior's window, on the side of the house by the tree, beating her little body against it, pecking loudly and persistently at the glass. We decided that she wanted to come into the room to build, and, of course, there was no doing anything with 12-year-old Junior about not letting her, so we opened the window. But that was not what she wanted at all. What do you suppose she did want?

By the window was a table on which was about everything that a boy usually owns, including a bunch of string. Mrs. Robin had seen it through the glass, and being a conquering sort of robin, decided she must have it. She flew in and about the room, paying no attention to us—but we were very, very still—and alighted on the table, pulled out a strand of string, and away she flew! After that for many days she came regularly for string. When the window was closed, she picked at it and scolded, until someone opened it, after which she would help herself and be off to her nest-building.

With the string she mixed mud and grass, making a substantial structure. Then one day from the window we saw in it five blue green eggs, and then five baby birds, squirmish looking things at first, but later quite respectable in their reddish brown shirt fronts, spotted with black. Mother Robin sported a black cap and a gay red vest.

Mr. Robin was quite a help with the babies, bringing food and watching the home while Mother Robin went away for occasional exercise. Many, many times a day he would call to her, "Cheerily, cheerup—cheerup—cheerily—cheerily, cheerup."—ELIZABETH HOAG.

Dear Household Editor:—I have received your two recipes on soap making. I have tried one recipe thus far, and a very good soap resulted. I think it is even better for laundry use than soap that I have purchased at a store.

Thank you very kindly for your help. I surely will know where to write if I have any trouble.—MRS. ALEXANDER CARLO, New York.

You can sell lightning rods

You need no sales experience to establish a profitable business of your own selling R. H. Co. Lightning Rods. They have been giving perfect lightning protection for 74 years, and bear the official approval of the U. S. Department of Agriculture and Underwriters' Laboratories.

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If you are looking for a real opportunity to build a substantial business on a good product which every farmer needs, write today for terms on exclusive territory and full particulars.

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The "Pride"

Just one of our wonderful bargains. Set comprises a 4, 4½ or 5 foot Iron enameled roll rim bath tub, one 19 inch roll rim enameled flat-back lavatory, and a syphon action, wash-down water closet with porcelain tank and oak post hinge seat; all china index faucets, nickel-plated traps, and all nickel-plated heavy fittings.

Send for Catalog 40

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VEGETABLE PLANTS ALL VARIETIES OF FOLLOWING PLANTS READY NOW

Potted Tomatoes, Egg Plant, Peppers, Asters and Scarlet Sage: $3.50 per 100; $30.00 per 1,000.

5,000,000 Cabbage and Tomato Plants (Field Grown): $2.25 per 1,000; 5,000, $10.00; 500, $1.50.

Transplanted Tomatoes and Peppers: $8.00 per 1,000; $1.00 per 100.

Cash with order. Send for List of All Plants.

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MILLIONS "FROSTPROOF" CABBAGE PLANTS

Copenhagen, Wakefields, Succession, &c., 300, $1.00; 500, $1.25; 1,000, $2.25. Mailed prepaid. Expressed 10,000, $15. Tomato and Sweet Potato plants, 300, $1.50; 500, $2.00; 1,000, $3.00. Expressed, 10,000, $20 cash. Don't take chances. Order from largest grower in Virginia. Guaranteed good delivery anywhere, or money refunded. J. P. COUNCILL COMPANY, Franklin, Va.

Strawberry Plants, Raspberry and Blackberry

fresh dug and postpaid at farmers' prices; circular on request. BROOKVIEW FARMS, R-S, PULASKI, N. Y.

STRAWBERRIES: Senators, $5. Chas. I—Abington—Stevens Late—Aroma, $5.50; 80c 100. Superb, $10; $1.50 100. All plants prepaid. F. G. MANGUS, Pulaski, N. Y.

Reviewing the Latest Eastern Markets and Prices

CHEESE SOLD BY "CALL"

HERSCHEL H. JONES

THE New York Mercantile Exchange, which is the board of trade of the egg and poultry wholesale business, last week began for the first time to sell cheese by the "call" system, as eggs are sold. At 10:40 A. M., those members of the exchange who have cheese to sell, may announce what they have to offer and buyers in turn give their bids. On the huge wall blackboard of the Exchange "Floor", the offerings and bids are written, and when the two meet, sales are made.

The use of the "call" method of selling cheese is to be tried two months and continued permanently if there is a demand for it. A committee of the Exchange prepared a system of grades which are to be used as a basis of trading in American cheese. These grades include: "Fancy Specials", "Fancy", "Average Run" and "Undergrades." At the opening sale Monday, May 14, 900 boxes were sold, about half State and half Wisconsin. Prices ranged from 21½ to 22⅞c on average run and fancies.

It is difficult to say at this time whether this innovation will have any material effect on the New York cheese quotations which are of vital interest to every dairyman in the New York milk shed. It may have a wholesome effect of giving more open publicity to offerings and sales, and thereby enlivening trade. On the other hand if too much importance is attached to such sales as an indication of the market, it might easily be possible for an interested party to manipulate the market with artificial sales of comparatively small quantities of cheese. Such a thing has been possible in the Exchange transaction on eggs.

These new grades of the New York Mercantile Exchange are now being used in daily trade quotations. The full grade descriptions will be furnished any of our readers on request. The Exchange grades do not take into consideration the score of the cheese, but the characteristics of each grade are described under the heads of Flavor, Body and Texture, Finish and Appearance, and Color. The new definition for "average run" cheese keeps the quality requirements of the grade constant, regardless of the season of the year and regardless of the average quality of the stock offered.

NEW POTATOES PREFERRED

In New York City there is practically no demand except in a very small way for old potatoes. The number of cars in the yards is relatively small but the buyers for the best trade do not seem to care if they vanish overnight for the stock is spongy, sprouted and in generally poor condition. All the attention is centered on potatoes from the South, mostly Florida with now and then a car or two from South Carolina. The market for Florida's touched $8.50 per bbl. on the docks last week and dealers are optimistic. Some are holding expecting the demand to continue and prices to advance a little. A good car from Carolina sold for $8.

The highest prices quoted for State potatoes were only realized in a few small sales of the best. On May 17, State round whites No. 1, per 150-lb. sack were quoted at $2.50 @ $2.60 for best and $2.25 @$2.40 for ordinary.

FRUIT PROSPECTS GOOD

Unofficial reports indicate a large crop of peaches in New Jersey this year, and comparatively little damage there from freezing. In Georgia and the Carolinas, however, the late frost did much damage and the crop will be small.

It is also reported that the summer apple crop promises to be much below last year, which would be a very good thing for the growers as the markets last year were glutted. The U. S. Bureau of Agricultural Economics reports cold storage holdings of barreled apples on May 1 as, 578,000 barrels, an excess over the same date last year of 330,000 bbls., compared with a five year average of 305,000 bbls. In spite of this excess in holdings over last year's stocks the markets generally are in good healthy shape with sufficient demand to maintain steady prices. Best Baldwins, A grade, 2½ inch, N. Y. State, brought last week $7 @ $7.50 per bbl.; Fancy, $7.50 @ $8; Ordinary, $6 @ $6.25; Ben Davis, best, $4.25 @ $4.50; Fair stock, $3.75 @ $4.

EGG MARKET IRREGULAR

The market for nearby hennery white eggs continued quiet, weak and irregular last week with the greater part of the supply selling in mixed bunches at a range of 29 @ 33c per dozen. Toward the end of the week most sales were at 29 to 31c. Very few, even of the best fancy fresh State eggs, and other nearby brought top quotations. Fanciest nearby and Jersey white eggs showing strict uniformity in color, size, quality and package were steady with a fair demand toward the end of the week at 36 to 40c per dozen according to the closeness of the grading. There was a surplus of average and ordinary qualities of nearby eggs.

So far this month the statistics indicate a shortage in storage accumulations compared with last year. The movement into storage has increased rapidly since May 1, however. The New York trade output has been increasing steadily since the slump early in April. The output for the past four consecutive weeks as given by the Producers' Price Current, are respectively: 81,757 cases; 98,072 cases; 107,797 cases; 124,866 cases.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on May 17:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	37@40	......	......
Other hennery whites, extras	36@37	......	......
Extra firsts	31@33	29@30	28
Firsts	29@30	......	26½
Gathered, whites, first to extra firsts	29@33	......	......
Lower grades	27½@28	......	......
Hennery browns, extras	33@35	......	......
Gathered browns and mixed colors, extras	29@32	28@29	......
Pullets No. 1	28@29	......	......
Butter (cents per pound)			
Creamery (salted) high score	43@43½	46@47	......
Extra (92 score)	42@42½	44@45	42½
State dairy (salted), finest	42	42@43	......
Good to prime	40½@41½	34@40	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade	Standards
Timothy No. 2	$23@24	$20@21	$21@22
Timothy No. 3	20@22	......	19@20
Timothy Sample	13@15	......	......
Fancy light clover mixed	26	......	21@22
Alfalfa, second cutting	27@29	......	......
Oat straw No. 1	10@11	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	29@30	27@29	30@31
Fowls, leghorns and poor	22@24	24@26	......
Chickens, leghorns	......	......	26@27
Roosters	14	17@18	16@18
Live Stock (cents per pound)			
Calves, good to medium	10½@13½	12@15¼	......
Bulls, common to good	4@4¾	5@6	......
Lambs, common to good	9½@12½	13	......
Sheep, common to good ewes	3½@5½	8½	......
Hogs, Yorkers	8½@9	8½	......

WHAT IT COSTS TO STORE EGGS

Egg producers may be interested at this time in a few figures on the cost of putting eggs into cold storage. In the first place, it may be well to point out that any responsible person can put eggs away in a public cold storage house. The storage charges are fixed by printed schedule. Although the storage companies might naturally be expected to show some preference to large, regular customers, they will accept lots as small as five or ten cases. The largest public cold storage company which stores eggs in the metropolitan area charges for storage in Jersey City the following prices:

Lots of 100 cases or more (30 dozen to the case), 14c per case for first month; 7c per case each month thereafter.

Lots of 25 to 100 cases, 16c per case for first month; 8c per case each month thereafter.

Lots of under 25 cases, 20c per case first month; 10c per case each month thereafter.

To these charges must be added cartage charges, except where delivery is made by express or carlots are delivered alongside the warehouse. Then there is insurance of about 42c per $100 worth of eggs per year. The cartage charges are about 6c per case from New York to Jersey City and 4 to 5c per case when the eggs are stored in New York City. Extra labor in handling eggs, requiring repacking or raising covers on the floor of the cold storage house, is charged for at 2c per case.

It is customary for the cold storage companies to advance about 70 per cent of the value of the eggs at the time they go into storage, but not to exceed $6 per case. The banks advance to their regular customers a higher percentage of the value. The interest charges on the money advanced on eggs must, of course, be added to the costs in determining whether any profit is made at the time they are withdrawn.

Any person wishing more detailed information relative to the cold storage of eggs can obtain it by writing to the Market Department of the American Agriculturist.—H. H. J.

BROILER SUPPLY INCREASING

Express shipments of broilers to the New York market last week were very much heavier and the demand was not sufficient to hold prices firm. Toward the end of the week only a small part of the broilers received sold at top quotations. Express shipments of fowls were very light and the trade paid for fowls unusually high for this time of the year, due in part at least to the cool weather.

Broilers, colored, fancy large, sold May 17, at 55c; colored small, 45 @ 50c; white leghorn, fancy large, 50c; white leghorn, small to medium, 30 @ 45c. Rabbits 31 @ 33c per lb.

CHEESE CONTINUES STEADY

In spite of gradualy increasing general supplies, cheese prices held steady last week. The expected decline in the Wisconsin primary markets did not materialize. The production is below normal for this season and full grass cheese is not yet being shipped from the producing States. Receipts of cheese at New York last week were actually lower than the previous week. State whole milk flats, fresh, average run, were quoted at 22c; held flats average run, at 27½ to 28c.

BUTTER MARKET FLIGHTY

The relatively high prices on creamery butter reported in our last issue did not hold last week. On May 17, creamery extras, (92 score) were down to 42¼ @ 42½c per lb., and the market was very sensitive. There were frequent fluctuations during the week within a narrow range. The surplus in production is approaching and the market is getting down to a speculative storage basis. It is still quite uncertain as to what June prices will be, but future sales for June extras on the Mercantile Exchange last week were within a range of 40¼ @ 40½c.

The possibility of large importations of foreign butter, providing our June market runs above the 40c level, is a strong factor in holding down the tendency toward higher prices. We have been drawing butter from various foreign countries under an 8c duty. Regular shipments have again started from Denmark, and Canada has been sending us a good many cars. Miscellaneous shipments of butter from Ireland, Finland, Esthonia and New Zealand, are due in New York within the next week or two.

DRESSED CALVES UP

The supply of country dressed calves on the New York market last week was so limited that the market advanced early in the week 1c per lb. on all grades. In the latter part of the week the trade was slower and the market tended weaker with quotations remaining about the same. Wholesale prices May 17, per 100 lbs. of country dressed veal calves were: prime, $13.50 @ $14.50; fair to good, $12.25 @ $13.25; common to medium $9 @ $12; culls, $8 @ $9; small, $5.50 @ $7.

The dressed lambs sold up to $10 per cwt. for choice heavy hot house, but poorer qualities lower.

LIVE CALF MARKET FIRM

The markets at Jersey City and 60th Street Stock Yards for large calves were very active and firm last week except that toward the end of the week there was a weaker tendency at Jersey City, where most of the calves were received. In the middle of the week live veal calves, prime, sold per cwt. at $14 to $14.50; fair to good, $12.75 @ $13.75; common to medium, $10 @ $12.50.

BUFFALO FEED PRICES STEADY

There were very few changes in feed prices at Buffalo last week. Quotations on carlots Buffalo rate basis, in 100 lb. sacks per ton on May 17, were: Gluten feed $41.05; cottonseed meal $44.30; oil meal, $39.50; standard spring bran, $33.50; hard winter bran, $34.50; standard spring middlings, $34.50; choice flour middlings, $37; white hominy, $35.80. No. 2 yellow corn per bushel, 94c; No. 2 white oats, 52½c; No. 3 white oats, 51c.

CASH GRAINS AT NEW YORK

Cash Grain quotations May 18 at New York were as follows: Wheat, No. 2 red, $1.52½; No. 2 hard winter, $1.35; No. 2 mixed durum, $1.30; corn, No. 2 yellow, $1.02, No. 2 mixed, $1.01½, No. 2 white, $1.02; oats, No. 2 white, 56½c, No. 3 white, 55c; rye, 92½c; barley, 82 @ 83c.

Chicago: No. 2 hard winter, wheat, $1.22½; corn, No. 2 white, 86c; No. 2 yellow, 86 @ 87c; oats, No. 2 white, 46 @ 46½c; No. 3 white, 45¼ @ 45¾; barley, 82 @ 83c.

WANTED
If you have HAY and STRAW to sell write us for quotations and free Booklet "How to market Hay and Straw."
JOHN E. MURRAY, Inc.
1658 BROADWAY, NEW YORK CITY, N.Y.

WANTED FRESH
Brown and White Eggs
Also Duck Eggs
GEO. M. RITTENHOUSE & CO.
23 and 25 Jay Street, New York
Established 1867

SHIP YOUR EGGS
WHITE AND BROWN
To R. BRENNER & SONS
Bonded Commission Merchants
358 Greenwich St., New York City

SHIP to the right house
M. ROTH & CO.
321 Greenwich St.—N. Y. C.
Write for shipping Tags
EGGS

How Federal Land Banks Help Farmers

(*Continued from page* 454)

The cost of this abstract, which must be paid by the applicant, will vary greatly, according to the labor involved and the scale of charges on the part of the attorney doing the work, but it will rarely be less than $20, and may easily reach $60. However, it ought to be said that an abstract once completed becomes a permanent record and will have real value if at any time it is desired to sell the farm. It is exceedingly desirable, however, that this necessary expense be kept as low as possible. The abstract becomes the property of the owner.

Subscribing to Shares of Stock

THERE is one other item of cost that is commonly very much misunderstood, and that is the subscription to shares of stock of the bank. The theory of the whole scheme is that the bank is a cooperative enterprise, and that each borrower must subscribe for shares of stock equal to five per cent of the amount of his loan. This stock is used as a basis for the distribution of dividends; that is, of any profits arising from the operation of the bank, and also as an insurance against any mismanagement of the local association.

At first sight, it seems ridiculous to demand that a man who is already seeking a loan should be asked at the same time to make an investment—and there is some truth in the contention. However, this must be said: That it is an investment and not merely an additional fee. It is practically certain to draw dividends during the years, and it will be deducted from the amount of the last payment. Last year the Springfield Bank paid dividends of 7 per cent on this stock. Also, in theory it makes every borrower a part of the organization of the bank.

The bank works pretty promptly. If an applicant feels that it takes an unconscionably long time to get his loan, I think he may generally feel that the delay rests with the local association rather than with the bank. They tell me that the record time for putting a loan through from the original application to the check was four days. But from two to three months will be the more usual time. There are several steps in the progress, but if there were no delays between it would not take long. Perhaps these steps may be stated thus: (1) Applying through the local association for the loan; (2) the visit and appraisal by the local loan committee; (3) filing the application with the bank; (4) the visit of the Federal appraiser; (5) the executive committee of the bank consider the application and make their decision, if favorable the loan is granted subject to acceptance by the applicant and the furnishing of a satisfactory abstract of title; (6) the closing of the loan and the mailing of the check to the local association.

A Policy of "Safety First"

IT must be said that the bank insists on "safety first" as rigidly as any institution well can. Probably no great corporation will ever be able to give the same sort of human touch and service that prevails between neighbors and friends—such as Joe Brown gave when he financed our county. Yet back of the whole plan is the fact that the Federal Land Bank is not organized to enable anyone to make money, but rather to furnish credit to farmers upon the most liberal and advantageous terms consistent with sound finance. With all their rigid care, there have been but few foreclosures.

The bank sells its bonds—that is to say, it borrows—in sums of many millions of dollars at a time, and then it loans out the money thus secured in sums ranging from $100 to $25,000. Its rules specifically provide that the interest rate to borrowers shall never be more than one per cent greater than the interest rate on their bonds. For example, just now the bank itself pays 4½ per cent interest, and loans this money out again at 5½ per cent, and out of this one per cent margin, which certainly does not seem excessive, it [illegible] reat organization, covers [illegible], in addition, accumu- [illegible]ble surplus, this sur- [illegible]t to the bank, but to [illegible]ons, and in the end to the borrowers of which the local associations are made up. If the bank is economical and successful in its operations, every borrower finally profits thereby.

The interest rate at present on mortgages is 5½ per cent, and this will be changed in accordance with the prevailing money market. If conditions become such that the bank can borrow at only 4 per cent, then the interest rate on loans will automatically fall to 5 per cent, and even the present loans may be reduced after five years. This is more liberal treatment than would be accorded by any private institution.

Perhaps the outstanding feature of a land bank mortgage is the amortization plan. "Amortization" is a long, and until recently, a very unfamiliar word. Perhaps we may freely translate it as "killing off the mortgage." The plan provides for a small uniform payment each year throughout the life of the mortgage, and this amount is so calculated that the whole debt, both principal and interest, will be paid at the end of a certain definite period. For example, the typical $1,000 mortgage of the Land Bank calls for the payment of $32.50 each six months for 34½ years of 69 semi-annual payments, when the debt will be paid. At first the amount of principal paid will be very small. For example, the first payment will represent $27.50 interest, and only $5 principal, but the last payment will be only 87 cents interest and $31.55 principal.

Paying Off the Mortgage

IT should be said that the contract provides that the entire amount may be paid on any interest date after five years, and, indeed, I was given to understand that the bank would probably waive the five-year clause if for any reason the mortgagee wishes to pay it earlier.

It is a fact that under the old arrangements there were a considerable number of mortgages where the interest has been paid through long years with promptness, but never any payment on the principal because the owner has unconsciously come to regard his interest payment as a sort of rental rather than interest on a debt. The amortization plan of the land bank avoids this attitude and insures a slow but absolute discharge of the debt.

So far as its position before the law is concerned, a land bank mortgage is in no way different from any other. The owner has precisely the small rights and privileges that he would possess if the mortgage was held by his neighbor, but it has the advantages of very small payments and a long term before due, together with an interest rate lower than he would be apt to secure if he had borrowed from an individual.

There are twelve branches of the Federal Land Bank scattered from New England to Washington (State), California and Texas, but most readers of the American Agriculturist will be interested only in Branch No. 1, located at Springfield, Mass., and serving New England, New York and New Jersey. Pennsylvania is served by the Baltimore branch.

A "Going Concern"

THE New England Bank is the smallest of the twelve, but on April 30 of this year it had outstanding loans aggregating more than $26,500,000, and during the preceding 12 months it had loaned money aggregating a little more than $8,000,000, divided among more than 2,500 farms. During the same period it distributed as "dividends" to the local associations nearly $49,000, and still retained a surplus of of nearly $250,000. It would seem to be fairly classed as a "going concern." Note again that the bank is a cooperative enterprise, and that this surplus will ultimately be distributed as dividends to the stockholders—that is to say, to those who are its borrowers.

I feel that at present the Federal Land Bank serves a real need in the rural community, and that it will have a far larger field of service when men come to have a better understanding of its methods and policy, which I admit seem at first to tangle with red tape.

HILLPOT QUALITY CHICKS

Sturdy, Healthy Chicks *plus* June

make the poultryman's ideal profit combination. Take advantage of it and book your order. You can't increase the supply of June days, but you can increase your satisfaction and profits by ordering these extra-livable, hatched-right chicks that come from **Hillpot Record Layers.**

	25	50	100	500	1000
White, Black or Brown Leghorns	$4.00	$7.50	$15.00	$72.50	$140.00
Barred Rocks	4.75	9.00	17.00	82.50	160.00
Rhode Island Reds	5.00	9.50	18.00	87.50	170.00
White Rocks or Anconas	5.25	10.00	19.00	92.50	180.00
Wh. Wyandottes or Blk. Minorcas	6.75	12.75	25.00	122.50	- - -
Mixed Chicks	3.50	6.50	12.00	57.50	- - -
SPECIAL MATING					
Mating A White Leghorns	6.75	12.75	25.00	- - -	- - -
Mating B White Leghorns	5.50	10.50	20.00	95.00	185.00
Barred Rocks	6.00	11.00	22.00	105.00	190.00

Send money order, check or registered letter. Chicks shipped parcel post with safe arrival of full count guaranteed anywhere in U. S. A. east of Mississippi River.

W. F. HILLPOT, Box 29, FRENCHTOWN, N. J.

Member International Baby Chick Association. Life Member American Poultry Association.

JERSEY BLACK GIANTS

Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

PICTURESQUE POULTRY FARM, Box 71, Trenton Junction, New Jersey

BUY HUBER'S RELIABLE CHICKS

Special Summer Prices After June 1st

Don't fail to take advantage of these prices, for they will include our number one grade chicks. Our stock is bred for quality and heavy egg production. They will be money-makers. Will ship any number of chicks from 25 on up.

S. C. White and Brown Leghorns and odds and ends at 10 cents. S. C. Anconas at 11 cents. R. C. and S. C. Reds and Barred Rocks, 13 cents. S. C. Buff Orpingtons and White Wyandottes at 15 cents. S. C. Black Minorcas at 14 cents. S. C. Buff Minorcas at 20 cents.

40,000 Chicks Every Week. Order Direct from This Ad. Attractive Catalog Free.

HUBER'S RELIABLE HATCHERY, North High St., FOSTORIA, OHIO

CHICKS $8.50 per 100 and Up POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

VARIETIES	Prices on— 50	100	500
WHITE, BROWN, AND BUFF LEGHORNS	$5.00	$9.50	$45.00
BARRED ROCKS, S. C. REDS, ANCONAS, MINORCAS	7.00	12.00	57.50
WHITE ROCKS, WHITE WYANDOTTES	7.00	13.00	62.50
BROILERS, MIXED CHICKS	5.00	9.00	42.50

BUFF MINORCAS — 25, $5.50; 50, $10; 100, $20.

Hatched in the best modern incubators from good, vigorous, pure-bred, heavy-laying flocks on free range. Carefully selected and packed to go safely. Order right from this ad with full remittance. Save time. No catalog. Reference: Citizens' Savings Bank. You take no chance. Instructions for raising late Chicks with each order. **THE EAGLE NEST HATCHERY, Box F, UPPER SANDUSKY, OHIO.** Only 18 hours from New York City.

CHICKS—$11.60 per 100 and UP POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

Varieties Prices on . . .	50	100	300	500
White, Brown & Buff Leghorns, Anconas	$6.50	$12.00	$35.00	$58.00
Barred Rocks, R. & S. C. Reds	$7.50	$14.00	$41.00	$68.00
Buff & White Wyandottes, & Buff Rocks	$8.00	$15.00	$44.00	$72.00

Our Chicks are from selected heavy laying flocks, fed and well cared for and in a manner to insure strong and vigorous Chicks. ORDER NOW DIRECT FROM THIS AD and save time and get them WHEN YOU WANT THEM. Reference: Kirkersville Savings Bank. Circular Free. Write for reduced prices for June.

KIRKERSVILLE HATCHERY Box D KIRKERSVILLE, OHIO

ATHENEON CHICKS REDUCED PRICES

12,000 per week hatched from healthy, vigorous, pure-bred, culled farm flocks—the kind that are easy to raise—live, lay, and pay. Our customers re-order. There is a reason.

VARIETIES Prices on—	50	100	300	500
S. C. WHITE, S. AND R. C. BROWN LEGHORNS	$5.50	$10	$30	$48
BARRED ROCKS, ANCONAS, BLACK LEGHORNS	6.50	12	35	58
WHITE ROCKS, R. C. AND S. C. REDS	7.00	13	38	63
WHITE AND SILVER WYANDOTTES, BLACK MINORCAS	8.00	15	44	73

ODDS AND ENDS—Heavy Breeds, 10 cents; Light Breeds, 9 cents each.

July prices the same. Mail your order now direct from this ad. Send check, money order, or registered letter. No shipments C. O. D. Full count and live delivery guaranteed. Parcel post prepaid. Reference: Athens National Bank.

ATHENS CHICK HATCHERY, Box Y, ATHENS, OHIO

100,000 Chicks for June Delivery

Our flocks are bred for heavy egg production and our **JUNE CHICKS** will make excellent winter layers.

VARIETIES Prices on—	50	100	500	1,000
WHITE AND BROWN LEGHORNS	$5.00	$10.00	$47.50	$90.00
BARRED ROCKS, REDS, ANCONAS	6.00	12.00	57.50	110.00
WHITE ROCKS, BLACK MINORCAS	6.50	13.00	62.50	120.00

MIXED CHICKS, ALL VARIETIES, PURE-BRED—same price as Leghorns POSTPAID.

Full live delivery guaranteed. Orders filled in rotation. Season ends July 1st. Order right from this ad. Save time. Reference: HURON CO. BANK. You take no chances. **NORWALK CHICK HATCHERY, Box B6, NORWALK, OHIO.** Only 16 hours from New York City. Chicks will reach you quickly and safely.

100,000 JUNE CHICKS

Hatched under my personal supervision from personally inspected flocks of heavy-laying, pure-bred fowls.

VARIETIES Prices on	100	500
WHITE BROWN. & BUFF LEGHORNS	$10	$47.50
BARRED ROCKS, REDS, ANCONAS	12	57.50
WHITE & BUFF ROCKS, WH. WYANDOTTES, MINORCAS	13	62.50
WHITE & BUFF ORPINGTONS, SILVER WYANDOTTES	14	67.50
MIXED CHICKS FOR BROILERS	$9 PER 100 STRAIGHT	

POSTPAID and full live delivery guaranteed. Get your order in quickly right from this advertisement with full remittance. Bank Reference. Free Catalog.

H. B. TIPPIN, Box F, Findlay, Ohio (Member I. B. C. A.)—Only 18 hours from New York City

CHICKS WITH PEP, $11 Per 100 and Up

Selected Hogan-tested flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wh. and Sil. Wyandottes, 50, $9.25; 100, $18. Barred and Wh. Rocks, S. and R. C. Reds, Minorcas, 50, $8.25; 100, $16. Anconas and Heavy Broilers, 50, $7.25; 100, $14. Wh., Br. and Buff Leghorns, 50, $7; 100, $13; mixed, all varieties, $11 per 100 straight. On 500, 5% off; 1,000, 10% off.

Free catalog. Member I. B. C. A.

HOLGATE HATCHERY, Box A, Holgate, Ohio

BABY CHICKS

We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

E. P. GRAY, Box 90, Savona, N. Y.

Free Catalog Land and Water Fowl, Chickens, Ducks, Geese, Turkeys, Guineas, Rabbits, Pigeons, Dogs, Stock and Eggs.

HOME STOCK FARM, SELLERSVILLE, PA.

Summer Prices of **BABY CHICKS** *for delivery after June 15th*

White, Brown and Buff Leghorns. Anconas and Black Minorcas . . } 10c. each

Barred and White Rocks, R. I. Reds. White Wyandottes and Buff Orpingtons } 13c. each

Assorted Varieties . . . . . 9c. each

For prompt shipments make first, second and third choice. If we should be short on one variety could fill on another. We send by parcel post prepaid. 90 per cent live delivery guaranteed. Order direct from this ad or send for price list.

THE LANTZ HATCHERY Established 1906 **TIFFIN, OHIO**

400,000 CHICKS

Big, strong Chicks from well-bred and well-kept heavy laying hens

White, Brown, and Buff Leghorns, 50, $5.50; 100, $10; 500, $48. Barred Rocks, Reds, Anconas, 50, $6.50; 100, $12; 500, $58. White Rocks, White Wyandottes, Buff Orpingtons, 50, $7; 100, $13; 500, $63. Silver Wyandottes, 50, $7.50; 100, $14; 500, $70.

Postpaid. Live arrival guaranteed. Bank reference. Order direct from this ad. FREE CIRCULAR.

MODERN HATCHERY, Box D, Mt. Blanchard, Ohio

DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.

WAYNE DUCK FARM & HATCHERY, Clyde, N. Y.

A Telephone Personality

In your face to face contacts with people, your appearance, your bearing and many other things help you to make the right impression. But in your telephone contacts there is only one thing by which you can be judged—your speech.

An effective telephone personality is to-day a business and social asset. Everybody appreciates the person who speaks distinctly and pleasantly, neither too fast nor too slow, with a clear enunciation of each word, with lips facing the mouthpiece and speaking into it. In business, this is the telephone personality which induces favorable action on the part of the listener. To the salesman it may mean the difference between an order and no order; between an interview granted and an interview refused.

Curiously enough, people who are careful to make themselves effectively heard and understood face to face, often disregard the need for effectiveness in their telephone speech. Perhaps they shout, perhaps they mumble, perhaps they hold the mouthpiece far from their lips. And frequently they never realize that their carelessness has defeated the purpose of their talk.

The Bell System maintains for telephone users the best facilities that science, modern equipment, skilled operation and careful management can bring to telephone speech. But these facilities can be fully effective only when they are properly used.

"BELL SYSTEM"
AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy, One System, Universal Service, and all directed toward Better Service

ASK YOUR GROCER FOR WHITE HOUSE TEA

4 AND 8 OUNCE CANISTERS

JUST AS GOOD AS WHITE HOUSE COFFEE
NO OTHER SO FRAGRANT AND DELICIOUS

SUITS WHEN OTHERS DISAPPOINT

BOSTON **DWINELL—WRIGHT CO.** CHICAGO

NEW PERFECTION
All-Purpose Oil Stove No. 422

Dimensions:
Length, 35½ in.
Width, 17½ in.
Height, 26 in.
Weight, 52 lbs.

Make your monthly milk check BIGGER

THE biggest cream check goes to the farmer with the cleanest dairy; the successful marketing of all milk products depends upon absolute cleanliness in the dairy. Whether it is the simplest sterilization of containers, or the more complete cleansing of an intricate milking machine, the New Perfection All-Purpose Stove, with the Giant Superfex Burners, gives an intense and positive heat for the limitation of bacteria.

Its sturdy build, its compactness (only 26" high) its broad porcelain enameled top—easy to move about, easy to clean—quick and powerful heat—makes it of special utility to the dairyman.

But beyond that, its intense heat—as fast as gas—adapts it to a hundred and one uses about the farm and the home.

It is economical to use and easy to keep clean. No coal dust to smudge, no dirt, ashes and kindling litter to clean up,—this is the appeal of the New Perfection All-Purpose Stove to the thrifty and careful farm housewife.

It is useful too in the rush of the canning season, and a necessity in the summer kitchen.

Kerosene is being used more and more as a year-round farmhouse fuel for cooking and heating. Clean, odorless, quick.

Any New Perfection dealer will gladly demonstrate this All-Purpose New Perfection, with Giant Superfex Burners.

STANDARD OIL CO. OF NEW YORK
26 Broadway

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AMERICAN AGRICULTURIST

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A Partnership Possible in No Other Business

Nine Hundred Years on the Same Farm—By Bernhard Ragner

The Purchasing Power of the Farmer

The Farmer as a Consumer and His Effect Upon Business Prosperity

By ALVA AGEE

THE American Agriculturist has invited me to take this place on the farm radio program furnished by that paper through the courtesy of WEAF.

The public takes a lively interest in farmers as producers. There is desire to see the food come along, and every year it does surely come. Much advice is offered to farmers and some of it is good. They have the advantage of a good background of experience. If the farmer were not conservative he would not long have a farm. However, science has done great things for agriculture and progressive farmers are demonstrating its value. The public is pretty well assured of an ample food supply.

Its interest should center upon our farming population as consumers, as customers, as users of others' products and services. The farmers, by reason of their number and the nature of their occupation, form the chief body of buyers in this country. Their purchasing power fixes the boundaries of business prosperity. When they cannot recover the cost of production of their crops for a series of years, and impair their capital seriously to keep going, all business necessarily slows down and we have hard times. This fact would be more apparent if the farmer were not a capitalist and could not arrange for credit after a single year of losses. The nature of farming is such that purchases of the necessities in production and of transportation continue for a time despite heavy losses. Credit can be secured and production continues. It results that many in the business world do not realize that their prosperity is being undermined until the demand for their goods and services is seriously cut. The banker, the manufacturer, the distributor, the professional man, the holder of bonds and stocks have a tremendous fundamental interest in the purchasing power of the country's greatest group of consumers—the farmers.

The price paid for food delivered at one's home is no index of the producers' financial well-being, and that it not wholly—nor, it may be, chiefly—the distributor's fault. For one thing, we like things out of season. We pay the freight and stand the waste of strawberries shipped from Florida and ship our berries into New England.

Western Potatoes in New Jersey

The other day in the Trenton, N. J., market I saw shipments of potatoes from Idaho, Minnesota, Michigan and Maine, and New Jersey produces millions of bushels of potatoes that are shipped early in the season as far west as St. Louis. I bought the Idaho potatoes at 3 cents per pound and did not bring a railing accusation against the transportation lines for robbery, but only wondered whether anything was left for the Idaho producer when the potatoes traveled three-quarters of the way across our continent.

In more conservative days we would have bought home-grown potatoes in the fall at one-third the price and stored for use until new potatoes came again. We have learned to be expensive to ourselves, demanding products shipped thousands of miles, and then we wonder if the farmer is not overcharging. Certainly I am not assuming to criticize, but only am urging that the producer may not be recovering cost of production no matter what our table supplies may cost, and we need his good purchasing power for any enduring prosperity.

If the farmers could get a fair share of the price paid by consumers they could stay good customers of people in other industries. A difficulty lies in the fact that food production is in the hands of seven millions of men who are naturally inclined to be independent in thought and action. Steel products can be standardized and directed to consumers without much waste, because only a relatively few men need agree upon the whole matter. All the owners of stock in steel works, large as the number is, are relatively few when compared with all the producers of food, and yet what waste and loss there would be in that industry if each stockholder took his share of the product and hunted his own market for it.

Some farmers realize the necessity of acting collectively in standardizing their products and in directing them to market in an orderly way. If the public would encourage such collective action in every way, producers would be brought closer to consumers and the latter would have greater certainty regarding what they were buying, and the elimination of waste would mean better buying power for the farmer.

A Combined Capitalist and Laborer

I have spoken of the farmers as a great group, and some such word must be used when we classify them industrially, but it is puzzling when workers in agriculture are discussed as a class apart from other Americans, and there is speculation regarding their economical and political views. The farmer is a combined capitalist and laborer, and he is of the same blood and family as the banker, the professional man, the merchant and the laborer in the city. The successful city man knows what the farmer is thinking because the chances are that his own kin are on the home farm. We do not want group government, and we are not asking for legislation in the special interest of a class when we seek it to permit collective selling of farm products, or the creation of banks that can make loans whose maturity will synchronize with the turnover on a farm, or the barring of counterfeiting of honest farm products. Farmers now have a better understanding of their business needs, and being the largest group of customers that other industries have, their increased purchasing power is a consideration second to none in our country's commercial program.

American agriculture is peculiarly dependent upon foreign markets, because we have an enormous amount of productive land and there is a surplus of products that depresses prices unless other countries have good buying power. The day may come when we shall produce no more than we need at home, but there is time for many a man to lose his farm before that day comes. Anyway, we do not want to go back to the mental attitude of the Chinese when they constructed their remarkable wall. We can't build it, and it would not be well for us if we could do so. There is no possibility of making the world boundaries, as far as we are concerned, just three miles off shore around the United States. The misery of the rest of the world would come in as freely as alcohol now does from the rum fleet lying outside the line. I wish everyone could have heard Lord Robert Cecil speak before he returned to England. He made no plea that this country do this, that or the other, but he pointed out that civilization in Europe was so endangered that another war would end it. Naturally he wanted our moral support in the promotion of peace, so that the countries of Europe could come back to a satisfying life. We cannot have any dependable prosperity until the countries of Europe find a way of recovery, and the parable of the Good Samaritan needs to be read in church every Sunday morning, if only in our own selfish interest.

Wanted to Close the Patent Office

THE address on this page was delivered by Mr. Agee, who is Secretary of Agriculture of New Jersey, from WEAF station, on May 30th, at 6:30 standard time. It is another one of the talks in the American Agriculturist farm radio program.

In 1812 an employee of the United States Patent Office suggested that the patent office should be closed as there was nothing more to be invented. Every time we take a speaker down to the broadcasting station and hear him talk through the air to perhaps a half million people, we think of the progress that has been made by man's inventive genius since 1812. The employee of the patent office would certainly be a very much surprised man, were he alive to-day. It would seem, with all the machines and mechanical conveniences which we have around us, that we must certainly now be near the limit of invention. Yet, without the shadow of a doubt, the next hundred years will see even more progress than in the past.

Just a few minutes before writing this, we saw a demonstration of lighting by wireless. Between the sending station and an ordinary electric bulb there was absolutely no wire connection; on the other hand, there were a heavy plate glass, several thicknesses of wood, and a thick rubber curtain, all excellent insulators. Yet, when the electric bulb came within a certain distance or "into the field" of the wireless waves, it became lighted. The demonstration showed how electric light waves might be sent from any railroad station or from the train dispatcher's office, lighting signal lights in the engineer's cab of a rapidly moving locomotive, and further, how a train might be automatically stopped by wireless waves, should the engineer, for any reason, fail to respond to the signals.

The possibilities of such an invention speak for themselves, and it is only one of literally thousands of mechanical, chemical and electrical equipment which the scientists are constantly working to perfect. —The Editors.

Some Radio Letters

"We are sending in the radio questionnaire with some suggestions. We had our radio put in in December and we certainly do enjoy it. We live on a farm at the edge of a little inland town where the environment is not just what you wish for your boys, but the hours of entertainment, lectures and many other things that we get over our radio are not only enjoyed by ourselves but by our neighbors also. The class of speakers which American Agriculturist is giving us through WEAF is splendid."

* * *

"In the past I have had considerable trouble tuning in on WEAF, but have found their new wave length the past two evenings very satisfactory. Will watch for American Agriculturist future Wednesday evening farm program."

* * *

"Kindly forward me a copy of the radio talk by Mr. Kenner, entitled 'Pitfalls that Snare Uninformed Investors.'"

American Agriculturist

THE FARM PAPER THAT PRINTS THE FARM NEWS

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Volume 111 | For the Week Ending June 2, 1923 | Number 22

Nine Hundred Years on the Same Farm

An Endurance Record Made by Twenty-four Generations of One Family

By BERNHARD RAGNER

YESTERDAY, Monsieur Lacassies Poublan, of Lucgarrier, France, was absolutely unknown in Paris. Nobody knew him. What is more, nobody cared to know him. To-day (as I write) his name is upon every lip. The story of his life is printed in all the French newspapers. He has been decorated by the minister of agriculture of the French republic. He is now a chevalier of the Order of Agricultural Merit.

And why?

Because he and his ancestors are the possessors of what might be called the world's agricultural endurance record. To them belongs the distinction of having lived in the same house, and of having tilled the same soil, for a period of 899 years. That looks like a mis-print, but it isn't, for the family has documents, of undoubted authenticity, to prove that back in 1023, a Poublan owned and cultivated the nucleus of the present homestead.

Since then, dynasties have fallen, kingdoms have been overturned, continents have been discovered, empires and republics have had their entrances and exits on the stage of history, but the Poublan family has remained loyal and true to its original hearthstone.

Undisturbed by the nervous movements of wars, crusades, reformations and revolutions—

> Along the cool, sequestered vale of life
> They kept the noiseless tenor of their way.

Joan of Arc chased the British invader from the soil of France, but the Poublans plowed their fields. John Calvin wrote his institutes and stimulated the reformation started by Luther and Zwingli, but the Poublans sowed their wheat. Christopher Columbus discovered America, but the Poublans harvested their grain. Jean Jacques Rousseau preached his revolutionary doctrines; the French Revolution came, Napoleon Bonaparte, like a gigantic comet of unexampled brilliance, flashed across the European sky, but the Poublans, serenely, loyally, wholeheartedly, cultivated the acres which the thrift and ancestors had bequeathed them.

If Mademoiselle Poublan studies English in her high school course, she will become acquainted with Alfred Tennyson's "The Brooke." Should she be inclined to parody his much-quoted lines, it would likely be as follows:

> Monarchs come and empires go,
> But the Poublans go on forever.

And with commendable industry and persistency, they have been "going on" since the year 1023, at least. The family records do not go back any farther than that. Ever since that year, however, long before William the Conqueror ever thought of invading England, the Poublan family has been cultivating the same corner of God's green earth. How the first Poublan (of record) came into possession of his homestead is not known; possibly by inheritance. But he must have been a man of uncommon sense, for he began the family register with these words:

"Within these pages, I shall register the names of the household chiefs of our family, their wives, the dates of their birth, of their marriage, and of their decease.

"And I pray those who succeed me to continue my work."

Then follows a curious list of names and dates, written on paper that is yellow with age, with ink that grows dimmer with each passing year. Part of the record is barely decipherable. Because of its archaic language, its length, and other characteristics, it reminds one of the genealogical lists printed in the Bible.

"I pray those who succeed me to continue my work." So wrote the first Poublan, and until the present day, his numerous posterity has kept the faith. His children and his children's children have continued his labor. Poublan I (he was a veritable monarch of the soil; why not give him his title?) little realized that Poublan XXIV would be decorated in 1923 with the Croix du Merite Agricole (Cross of Agricultural Merit) because of this "most marvellous example of fidelity to the land that a strong and serene peasantry can give to a country of which agriculture, as Sully said, is the nourishing breast."

As the centuries passed, history was made at Hastings, Agincourt, Waterloo, Gettysburg and Chateau Thierry, but the Poublan family (except for their soldier sons) remained at Lucgarrier, on their farm in the department of the Basses Pyrenees near the Spanish border. They devotedly worked the acres which their forefathers had left them. In fact, their industry was such that the family homestead increased, until now it includes 80 hectares (approximately 200 acres). And all the while, they kept the family records straight.

Each generation contributed its portion of labor. Each generation expended its portion of sweat, and transmitted the heritage—enlarged and improved—to the next in line. Only once did a Poublan desert the ancestral domain, and that was only temporarily—to make his fortune in America! But he returned later, and continued his father's work.

The present Poublan is the twenty-fourth in the ancestral line. He is a fine example of the French farmer—strong, self-controlled, a capable artisan of the soil, and passionately devoted to his home and his country. He is the mayor of his township; and his son, now rendering his eighteen months of military service to France, hopes some day to assume his father's ancestral and civic functions.

(*Continued on page* 472)

Don't Miss This Story

THIS fine story was sent to us clear from France. It is the most wonderful record of human service by one family that we have ever read. A few of our farm families pride themselves on living on the farm that has been in the same family since Colonial days. But the Poublan family was faithfully cultivating their farm four hundred years before the first white men set foot in the American wilderness. —The Editors.

The reformation came and passed, but the Poublans sowed their wheat

Columbus discovered America, but the Poublans harvested their grain

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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The Agricultural Outlook

THE United States Department of Agriculture says that the general agricultural outlook now is probably the best it has been in three years. "The domestic market for farm products is reported to have been improved immeasurably as a result of the increased prosperity in urban communities. When labor is fully employed and wages high, farm products find a readier sale and better prices. This is what has helped sustain the prices of hogs this spring; likewise, lambs, cattle, dairy products, eggs and many vegetables. The outlook for next fall and winter is considered to depend upon a continuation of the present industrial boom in the city."

Professor G. F. Warren, the well-known farm economist, says that farm prices follow about fifteen months behind those that prevail in other business; that is, if city prices go up, farm prices will presumably follow about fifteen months later. This is evidently what is happening now. High wages and high prices prevailed for some time in the cities before the farmer could begin to feel the effect. He is, therefore, just beginning to get some small results from the present urban prosperity. This is evidenced in one way in the milk prices which prevail in eastern territory. For instance, the League net pool price for April of this year is $2.07½ per hundred, which is $.74 higher than the corresponding price for last year.

The labor shortage will be a factor in farm prices, but while there is a large shortage its effect will be comparatively small because farmers and their families will work harder themselves.

Dr. Warren qualifies all of his statements about future production and prices by the word "presumably," for he says that it is possible for weather conditions to upset entirely all forecasts of future production. All other factors affecting production are insignificant in their effect compared with weather. For instance, even a very great labor shortage would only make a difference in production or prices of four or five per cent; while a large rainfall or a small rainfall might increase or decrease production as much as twenty per cent.

We have been very careful in anything we have said in regard to the future, to be conservative in not painting too rosy a picture, but there are some indications now that if the weather does not interfere and if the farmers have not over-planted, there will be more farm dollars and therefore more farm purchasing power this fall than there have been in several years. Let us all hope and pray that this may be the case.

The Losses With the Profits

NOT all years are good years, even with the middleman. This fact that must be taken into account when farmers try to market their products themselves through cooperative organizations. There are bound to be bad years, with losses which the best organizations in the world cannot prevent.

Last year was such a year in the fruit business. Many of the dealers who handled peaches, pears, plums, prunes and early apples in western New York lost money on them. There was a heavy crop and most of it had to be packed and shipped within six weeks. The railroads were just coming out of a big strike and there were, therefore, delays in transit. Markets were heavily supplied and nearly all of these markets gradually declined.

The dealers covered such losses by taking it out of the winter fruit which they handled later, or out of profits earned in previous years. Cooperative associations, such as the Western New York Packing Association, must do the same thing. If the dealers lose money on a season's deal, the cooperative may also lose. Perhaps if they have better methods they will not lose quite so much. On the other hand, if the dealers make money it is reasonable to assume that if the cooperative has good management and efficiency, it will also make money. The success of marketing through cooperation, therefore, cannot be judged upon one year's or even two years' operations.

Going After the Cows

ONE Sunday afternoon in early June, Uncle Sam Farmer roused himself from his chair on the sunny side of the porch where he had been cat-napping, to go after the cows. With a walking stick, which served both as a cane and a cow accelerator, he crossed the creek bridge, passed through the lane bordered on both sides by apple trees in blossom, and began the long hill climb to get the cows out of the farthest corner of the back pasture. Closing our eyes we can see him in imagination, swinging his stick and with bowed head slowly climbing the hillside cow-path, turning every now and then to look down across the fertile valley whose productiveness and beauty his own hands had helped to make possible.

As he sat a few moments to rest in the June sunshine, was he thinking bitterly of his long spell of sickness and of the quack remedies which the would-be farm doctors had prescribed; was he thinking, do you suppose, of the hard times through which farmers had passed and were passing? We believe not. Memory has a nice habit of glossing over past troubles and emphasizing the more pleasant of life's past experiences. Besides, the surroundings did not lend themselves to bitter thoughts. No, we think it more likely that Sam might have been recalling that time when his father as a very little boy had come with grandfather and grandmother on an ox-sled into this valley—that time when the nearest settlement was forty miles away, when timber wolves still ran in a virgin forest which stretched, with few cleared spaces, one hundred and fifty miles to the Hudson Valley. Or maybe he was remembering that other spring Sunday back in '61 when he had started after the cows and had come back four years later after doing his part to make Appomattox possible. There had been quite a spell then when someone else had to get the cows and milk them.

Maybe he remembered, too, how uneasy and dissatisfied he had been with the quiet life of the farm after the excitement of the Wilderness fights, Gettysburg and Winchester, and could, therefore, sympathize some now with Young Sam who thought the old farm pretty slow and was considering going off to the city.

As he looked down across the pasture which the blossoming dandelions had made into a field of cloth of gold, perhaps the thought came of all the changes that had come into this quiet valley and into the world in the span of only three generations of men. In the place where the forests had once stood not so long ago, he saw with some pride the dark green of the young clover seeding, bordered by the bare fields of newly planted corn and potatoes which he and Young Sam had just put into the ground. Next were the acres of oats just beginning to cover the ground, and on farther, near the farmstead, blossomed the orchard where a million bees testified to the goodness of the work of the Sam Farmer the First, who set the trees in their orderly rows.

As Sam looked down across the valley that Sunday afternoon, upon his handiwork and saw that for the most part it was good, we are sure he was thinking that he was glad that his life, even with all its sacrifices and hard work, has been cast among the pleasant fields of this farm valley, and that he could make no better wish for Young Sam than that he would stay with him on the old place and "carry on."

Have They Kicked Yet?

A CORRESPONDENT writes: "I think we farmers have a habit, whether we sell milk, potatoes or apples, of not raising the standard and quality of our own goods voluntarily, but always waiting until the customer kicks on the poor service or quality."

There is much truth in this statement. The New York City milk shed, that is, all the territory within fluid milk shipping distance of New York City, is probably the best and most prosperous dairy section in the world, producing a quality of fluid milk which is not equalled in any other place. This state of affairs, which is desirable from both the consumer and producer's standpoint, exists not because most of us as farmers voluntarily fixed up our barns, but because we were forced to, if we were to stay in the business of shipping fluid milk to the city.

All of the grumbling and cursing that has been done by farmers because they were obliged to remodel and clean up their stables would fill a library. Some of this grumbling was, of course, justified because of unreasonable and foolish requirements, but in principle, and in the main, the requirements were right; and there are mighty few dairymen, who, having once cleaned up and placed their barns in a position so that clean, high quality milk could be produced in them, would go back to the old way even if they could.

One of the chief ways in which the cooperative associations are going to help the marketing work of farmers is in recognizing the fundamental principle that good selling is based upon the production, grading and packing of high quality, clean products. Having once put this principle into effect, such products will almost sell themselves.

If it is Farm News, you will see it in the American Agriculturist.

A Review of New York's 146th Legislature

What Was Accomplished at Albany of Interest to Farmers

By BURT MILLER

Representative, Legislative Committee
New York State Farm Bureau Federation

THE one hundred and forty-sixth session of the Legislature of the State of New York which closed recently, accomplished nothing of great importance to farmers. The rural school bill doubtless claimed the keenest interest among farmers and farm organizations and the $500,000 appropriation for a coliseum to make the national dairy show a possibility had concerted support from all the agricultural bodies of the State. There were other bills in which the farmers' representatives at Albany were interested, but there were none with which they were vitally concerned except the O'Connor bill, which events proved to be but a flash in the pan.

The distinctive feature of the session, from the farmers' point of view, was the unanimity of action displayed at all times by the farm leaders. Early in the session their ability to work together for the common good was tested with the request for a $500,000 appropriation for the coliseum and stock judging pavilion at the State Fair grounds in Syracuse. The National Dairy Show had been secured for New York State for the first time on the promise that suitable facilities for housing the exhibits and stock would be furnished. A coliseum was essential. The fruit men had long wanted a new horticultural building at the fair and were reasonably sure of getting it this year until the need for the coliseum arose, but they generously withdrew their claims and gave their cordial support to the coliseum project, as did every farm organization of the State. The bill was introduced on February 14 and signed by the Governor on February 26. The addition of the coliseum to the fair grounds makes possible the bringing to New York of the greatest dairy event of the year, one which promotes the dairy industry and teaches more efficient dairying.

Rural School Bill Defeated

The failure of the rural school bill was a great disappointment to many, but is in no way considered final. This measure is so well known that it scarcely seems necessary to mention its provisions. On April 25 it passed the Senate. On April 26 a hearing was held, which while not the largest ever seen in Albany was certainly one of the most representative. When Enos Lee, president of the farm bureau federation, marshalled his forces in defense of the bill, he was able to call on a representative of nearly every farm organization in the State. The Grange, the Dairymen's League, the Farm Bureau Federation, the Home Bureau Federation, the Horticultural Society, the Grange League Federation Exchange, the Cooperative Council, and many local organizations of farmers had a man or a woman—or a whole delegation—present to support the measure. Only four men advanced objections to the bill, speaking as individuals.

Supporters of the bill were quite confident of its passage after the hearing, but it failed to be reported in the assembly after conference. The up-State legislators expressed their belief that the bill was all right, but that the rural school patrons were not yet ready for the changes provided.

Five Million for TB Eradication

The budget as it was finally made up carries most of the appropriations which farmers wanted, though not always the exact sum asked for. In the closing days of the legislature appropriations for $20,000 and $10,000 respectively for the New York State exhibit at the dairy show in Syracuse, and the fruit show in New York City, both to be held in the fall, were passed. $30,000 was asked in each case.

It required little effort upon the part of farmers to secure the support of the legislature and Governor Smith for an appropriation to continue accredited herd work because it affects so many people and its importance is so universally recognized.

The Governor changed the policy of the State in regard to the payment of indemnities for cattle slaughtered under the accredited herd plan by appropriating $2,500,000 to pay claims up to July 1, 1923—all of which was owed by the State to dairymen and breeders—and an additional $2,500,000 for the next fiscal year. In the past when a farmer had his cattle slaughtered under the accredited herd plan he was obliged to wait until toward the end of the fiscal year when State indemnity money was appropriated. Under the new plan indemnity money will be paid immediately to the breeders, a system much more pleasing to them. Governor Smith and the legislature are to be congratulated on this change to a pay-as-you-go plan.

Might Have Caused Farmers Uneasiness

The one measure which might have caused the organized farmer some uneasiness was the O'Connor Bill, introduced by Assemblyman O'Connor of New York and Senator Sheridan. It was a bill amending section 340 of the general business law by making prohibition against monopolies apply to cooperative associations of farmers, gardeners, dairymen, and fruit growers and not apply to the labor of human beings and the right of workingmen to combine in unions not organized for profit. This bill passed the Senate, and went into the general laws committee in the Assembly. A motion was made to discharge this committee and put the measure in the judiciary committee, of which Assemblyman O'Connor was a member, but it failed of passage. The bill was not reported out of the general laws committee.

The farm bureau federation interested itself particularly and was largely responsible for the passage of a measure bringing about a reduction of the truck license fee from $16 to $12 on half-ton trucks. This of course affects directly farm trucks—for most of them come in this classification—and means an annual saving of an appreciable amount of money to the farmers of the State.

A number of bills were introduced which were concerned with the maintenance of State highways, bridges, and the like. At the present time the bridges on State highways are built and kept up by the townships, and bridges originally intended for neighborhood traffic only now are called upon to bear the heavy trucks used in State and interstate traffic. A bill was introduced providing for the State maintenance of these bridges on State highways. The Senate claimed it had insufficient information to act, so a joint committee was appointed to secure facts as to the number and kinds of bridges located upon the highways and report back to the next legislature when it is believed that favorable action will be taken.

All the farmers of the State interested in the development of agriculture have felt a friendly concern to see the building program of the college which was laid out some ten years ago, go into effect. In 1913 the legislature authorized the drafting of plans for buildings at the college of agriculture, but the war brought construction to an end. In 1920 a bill was passed authorizing $3,000,000 for a building program and $500,000 was appropriated for immediate construction. This amount was used for a dairy building, now almost ready for occupancy.

The legislature this year has definitely recognized and continued that program with an authorization of $500,000 to begin construction on a plant industry building. The question of the legality of authorizing construction of State institutions in excess of appropriations actually made, which was raised by former Governor Miller, was covered by an opinion of the present attorney general holding that under certain circumstances such authorizations were legal and that the conditions surrounding the authorization of 1920 for the college of agriculture came within the requirements of legality.

In addition the college of agriculture received $41,000 for new positions—about half of them for the department of dairy industry to take care of the new lines of work made possible by the new building; the others scattered through various departments and representing needs long felt at the college. An appropriation of $25,000 for increasing salaries at the institution was also passed.

An appropriation of approximately $63,000 for contributions to the farm and home bureau work, previously made by the department of farms and markets, was transferred by the legislature to the college of agriculture. This transfer is in line with the change made last year in the law, placing full State responsibility for this work with the college.

Geneva Bill Passes Both Houses

The Witter bill passed both houses after considerable controversy both inside the legislature and outside it. It adds a new section to the education law and repeals sections 280 and 283 of the farms and markets law providing for the administration at Cornell University of the State Agricultural Experiment Station at Geneva.

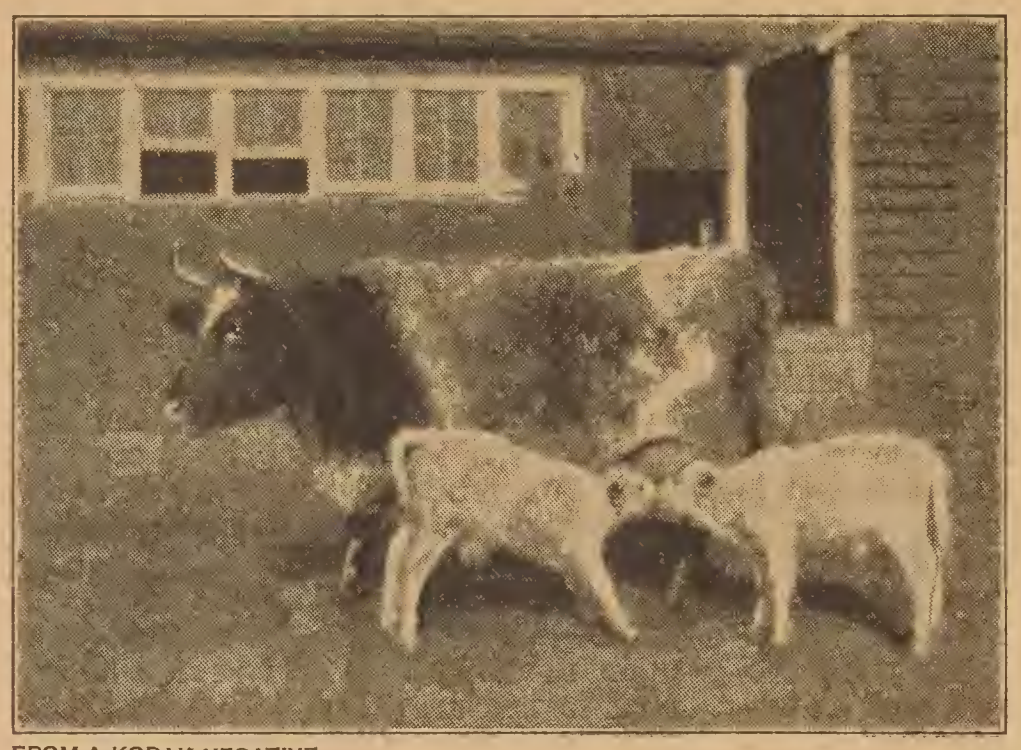
The scientific staffs and trustees at both Geneva and Cornell gave full endorsement to the measure and it was supported by the farm bureau federation and other farm organizations. It is believed that the passage of the bill will make for efficiency and less duplication of effort in the two institutions and free some of the facilities of each for additional research work. The bill was lost on

(*Continued on page* 479)

Ku Klux Unmasked

WE know you will be interested in Mr. Miller's excellent article on this page reviewing the accomplishments, and lack of them, of the New York State Legislature on agricultural legislation. A few of the other bills not strictly agricultural, but of general interest to farm people, which the legislature passed are the Mullan-Gage Repeal Act, the act unmasking the Ku Klux Klan, the Sheppard-Towner Enabling Act, and three other bills, giving women more property and family rights.

The Mullan-Gage Repeal Act, which removes the State support of the national Volstead Prohibition Act, has not been signed at this writing by Governor Smith. The Ku Klux Klan Act makes it illegal in New York State for that organization to carry on its activities under a mask. The Sheppard-Towner Enabling Act provides for taking advantage of the national Sheppard-Towner Enabling Act for the protection of maternity and infant welfare.—The Editors.



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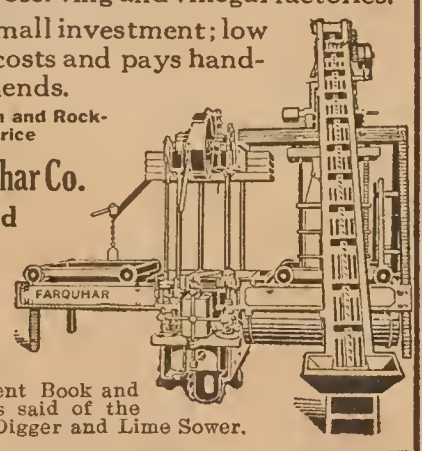

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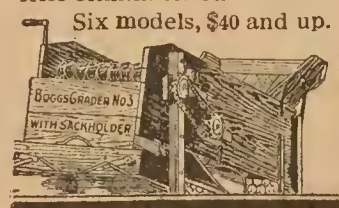

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How I Grow Melons

Improving the Variety Simplifies Marketing Problems

By T. M. SMITH

THE Eden Gem cantaloupe has been grown successfully in this section of New Jersey for a long time. The first grown were planted for family use. The best specimens were selected for seed and it was soon noticed that this home raised seed were much superior to the original stock. From these seed came the Improved Eden Gem cantaloupes. The melon is large with a rough coarse coating, which we call a net. The flesh is thick, green in color, but very sweet.

When I began with this variety there were seldom any standard sized melons, mostly Jumbos and once in a while one would be too large to pack in this carrier. A larger carrier was required for these, so the Extra Large carrier was made; the heads 16 inches square and the slats Jumbo length. This held 45 melons. By carefully selecting the largest, heaviest netted and sweetest melons year after year, about half of the crop is the Extra Large. Unless great care is taken in saving seed from only healthy well netted specimens the net will get lighter each year until the seed will run out.

Selecting the Seed

We like to get our seed from the first set of fruit, not necessarily from the first to ripen but those large, heavy, juicy fellows that bring the top prices. We can't keep our best melons and sell them at the same time, but it pays us to save the seed from only the best—first, last and all the time. Whether buying or saving seed, get the best, deal with a reliable seedsman and pay the price of good seed. Don't wish you had.

The sandy loam soil produces the finest melons. The heavier soils may sometimes grow them slightly larger but of inferior quality. Stable manure is applied broadcast at the rate of from 10 to 20 tons to the acre. When compost is used, this is put in the row. If cantaloupes follow sweet potatoes which have been manured, they do not require as much as if the crop were corn with no manure. After potatoes, the land is double-disced in the spring, cutting the vines so that they do not interfere with cultivation. The acme harrow follows until the land is fine and level, when the rows are run out 5 feet apart.

Laying Out the Patch

If the manure has been broadcasted, chicken manure is spread in the row. The rows are then covered with two light furrows and allowed to stand until just before planting time, when a light slab drag is run over the list to smooth the rows, giving fresh soil in which to plant, killing many weeds, and saving much handwork later. A marker is run cross-wise of the rows making the hills 3 feet apart in the rows. This distance has proved to be the most satisfactory after years of experimenting for the Improved Eden Gem as grown on our farm. The seeds are then planted about 1 inch deep, from 10 to 12 seeds to the hill. If the weather is cool or unfavorable another planting is made one week later. We think it is better to waste a few seeds than it is to have an irregular stand.

As soon as the plants are up they are dusted with air-slaked or hydrated lime. Several days later they are either dusted with an insecticide, or sprayed with arsenate of lead and Bordeaux. When the plants have three or more leaves, Black Leaf 40, sometimes is added to kill the aphis. This spraying or dusting is continued until the melons begin to net.

Thinning the Plants

We leave only one strong healthy plant to the hill. This will cover half of the row on each side. The roots have a better chance to feed than if there are two in a hill. Shallow level cultivation is regularly given, but the ground between the hills is cleaned with the hoe. When the vines prevent cultivation they are trained away from the middle of every other row so as to leave a space for the pickers to walk without injury to vines. The vines are never cultivated or handled while wet.

When the cantaloupes will slip the stem, that is, will leave the vine without breaking it, is the proper time to pick them for market. If picked before, they will not ripen as they should, but if the melons are for home or local use, they may be left on the vines until they yellow. Pick a green cantaloupe one week before it would slip the stem and one that will slip the stem and put them both on ice for several days, then compare the two and you will get some idea of how the customer feels when he gets a green one. No matter how much sugar you add, will not make it taste as it should. This is one cause for the glutted markets.

Harvesting and Grading

The cantaloupes are picked each day except Sunday. One grade consists of the large heavy fellows with the rough jackets whose meat is good to the rind and when you get one you want more. The very fragrance before they are cut makes the mouth water. The other grade is fed to our hogs who do not grumble at the inferior quality but often squeal for more. Quality rather than quantity is the aim, for the best grade will sell for more than the culls and run of the crop mixed and sold. Some of our fruit would get too ripe to ship from Saturday to Monday, so I developed a trade in town. This takes care of the over-ripe fruit but now they get several carriers of this each day so there is no loss, but has helped advertise them. A nearby hotel is a regular customer and the guests often order cantaloupes to either send or carry home with them.

Selling Direct

The Improved Eden Gem has commanded a premium on the New York market for a long time and most of them were shipped to one firm until several years ago. The rainy weather ruined most of the cantaloupes in this section but the Improved Gem were good. The market declined until there was no profit in shipping and we were about half through picking. A loss stared us in the face. I took a load of my best ripe cantaloupes to town and was told that I couldn't sell them before I went. I laughed with them and told them we would see who was right.

The first house where I stopped told me nothing doing. but I offered to give them one if it was not as I said it was, without charge, but if it was they would take a basket. I soon sold out all I had and went back each day as long as the season lasted, getting 50 cents per ⅝ bushel basket for them. Meanwhile the cashier of the bank heard of my success and when he received an inquiry for cantaloupes gave it to me. I filled the order and have had that customer ever since, and he has been the means of my start in direct selling.

One Brings Another

Each customer is asked to send the name and address of any friend who would like to get good cantaloupes and some write while others do not. But the bible says, "Ask and ye shall receive" so no harm is done. The bulk of our trade comes from satisfied customers so that now we ship practically all of our melons direct. Our terms are cash with the order which gives less bookkeeping than otherwise. If it is impossible to fill the orders for any reason the money is refunded immediately. A good name is not made in a day, but if we were to ship inferior cantaloupes the trade would get them, where they could depend on the quality. This is the way we hold our trade and add to it year after year, ship good fruit that is backed by the reputation of the farm. We have a good strain and stick to it, but are always trying to improve it and aim to produce the best melon grown. We have had hail storms that ruined the crop, squash bugs that made them ripen too soon and other incidentals too numerous to mention, but so far each year, has showed a profit growing these delicious melons.

Alfalfa—The Comer

Why Do Not More Farmers Grow It?

By W. C. SMITH

NEVER had I this question so forcibly impressed upon me as I had it a few years ago. I found myself with a surplus of alfalfa hay, and as soon as the fact became known, my farm at once became the Mecca for an army of seekers for the best hay and feed grown upon the American farm. And they did not come from the city alone, the majority came from the farms nearby and as far as 10 miles away. My supply was exhausted before one-tenth of the seekers were satisfied, and those who were satisfied left behind a good price for the succulent feed they took away with them.

And yet there was not a single one of those farmers who came to my farm for alfalfa hay, who could not have grown alfalfa upon their own farms.

A few years ago my son and I went up into Wisconsin to purchase some Guernsey milk cows to coin our alfalfa hay into gold dollars. We went to a district where the dairy business was preeminent above every other branch of the business of farming, and where every farmer was keeping from 10 to 150 cows. Of course, wwe inquired about feeds for cows, and to our delight, alfalfa in every instance was placed at the head of feeds. And yet, in our trip over a large portion of the State we did not see 50 acres of alfalfa.

The last dairyman we visited had a herd of 150 cows, housed in a barn equipped with every convenience necessary for his business. He had a splendid farm and I saw that it would grow alfalfa. I asked him about feeds for cows and he replied as follows:

"Smith, for dairy feeds, alfalfa has every feed backed clear off the map."

"Do you grow it?" I asked.

With a smile he answered; "Yes, but only in a small way. I buy all I need."

I again asked; "Can you grow it upon your farm?"

Knowing that I had written a book upon alfalfa, he looked at me as though he was wondering why I should ask such a question, that if I knew the business of alfalfa growing I ought to be able to tell whether his farm would grow alfalfa without asking him. But he answered the question and I have not yet been able to figure out why he did not grow all he needed instead of paying from $30 to $40 per ton F. O. B. shipping station as he was then paying for alfalfa hay. This was his answer.

"Yes, I sure can grow it. Have grown as high as seven tons to the acre in one season from three cuttings."

Of course, I could not help asking him the question: "Well, why don't you grow all you need when your land is so generous in its production, instead of paying the fancy prices you are now paying for it?"

He didn't make a satisfactory answer to the question. And here was a farmer that needed a lot of alfalfa hay, he had ideal land and plenty of it upon which to grow it, he had a lot of manure to stimulate its growth, and at the time we were talking I could hear the noise of a large limestone crusher, not a mile away, that was crushing into agricultural lime some of the best limestone for agricultural purposes found in any State.

A breeder of Poland China hogs once came to my farm for a load of the third cutting of alfalfa for his brood sows, and said, as I had been saying, preaching and practicing for years, that it was the finest feed for brood sows carrying their pigs that could be fed them.

I knew that he had as good alfalfa land as I had, so I asked him why he didn't grow it, especially when he was in the hog breeding business and knew that alfalfa was the best feed he could feed them. His answer perhaps, is the most satisfactory answer that can be given to the question propounded by the title of this article. It was: "Pure laziness, I suppose."

I recently took on the management of a four hundred acre farm that for years had trouble in even producing enough hay for the tenant, which of course made a large portion of the farm unprofitable for the landlord. A large tract each year was set apart for the growing of timothy, which didn't produce a ton to the acre, yet the same land had produced good crops of corn, wheat and oats. The timothy had been exhausting the fertility of the land. So I said no more timothy would be grown upon that farm, at least while I was managing it.

When I said alfalfa would be grown upon it a great howl went up from those heard about it, and it was said that it couldn't be done, that it had been tried out with failure after failure. I said that we would try again, for if we succeeded 10 acres would produce more hay than 40 acres had been doing, and it would be a lot better hay, too.

I picked out where the test should be made and ten acres were sown to alfalfa in August, 1921. Last summer the ten acres produced three full crops of fine alfalfa hay, and the croakers were put to route. Alfalfa will be one of the best crops grown upon that farm, while I am in control of it at least.

It will not do to say that our farms will not grow alfalfa, for most of them will, and there is hardly a State in which it will not grow. If then its growing means more and better feed for our live stock, and more money for the farmer who grows it, why isn't more of it grown?

• • •

500,000 Acres By 1934

THE greatest and most far-reaching revolutions are those that come so gradually and so silently that little attention is paid to them.

In 1900, there were only 5,582 acres of alfalfa in New York State; in 1910, this acreage had multiplied better than six times to 35,343 acres; and in 1920, the acreage had increased to 119,783.

Great progress has been made in developing northern grown seed, and in finding varieties with a spreading root system which will withstand our northern winters. With this progress it is safe to say that New York State alone will undoubtedly have in another ten years better than 500,000 acres of alfalfa.

The coming of this legume will mean much to farmers. When once established, with hardy seed and with winter resisting qualities, a field of alfalfa is good for ten years or more, with at least three crops a year. Compare this with what can be accomplished with clover and timothy; then remember that there is nothing the farmer can grow that can approach alfalfa in feeding qualities, and add the fact that every year alfalfa is in the ground the soil improves, and you will see why a large acreage of alfalfa in every community will so greatly add to farm prosperity.—The Editors.

LIVE STOCK SALES DATES

June 2—Fifth Annual Sale, Bradford County Milking Shorthorn Breeders' Association, Troy, Pa.

June 5—Pinery Farms, Annual Holstein Sale, Mentor, Ohio.

June 5—Crawford County Milking Shorthorn Sale, Westwood, Pa.

June 5—Crawford County Milking Shorthorn Breeders, Westford, Pa., C. G. Wagner, Manager.

June 5—Madison County Shorthorn Breeders, London Ohio.

June 7-8—National Cooperative Holstein Sale, Cleveland, Ohio.

June 8—Plain Hill Farms Annual Holstein Sale, Norwich, Conn.

June 26—Estate of R. Conroy Vance, Jerseys, Fredericksburg, Va.

15,000 *lbs. per Year...*

is the amount of milk any good grade Holstein ought to produce if properly fed.

7,470 lbs. per year was the average produced by a dozen or so good grade Holsteins on alfalfa hay and corn silage alone.

It was an interesting experiment. But can the man who milks cows for a living afford to follow this sort of practise? Is it the sort of practise that buys his shoes and lifts his mortgage and sends his son to college?

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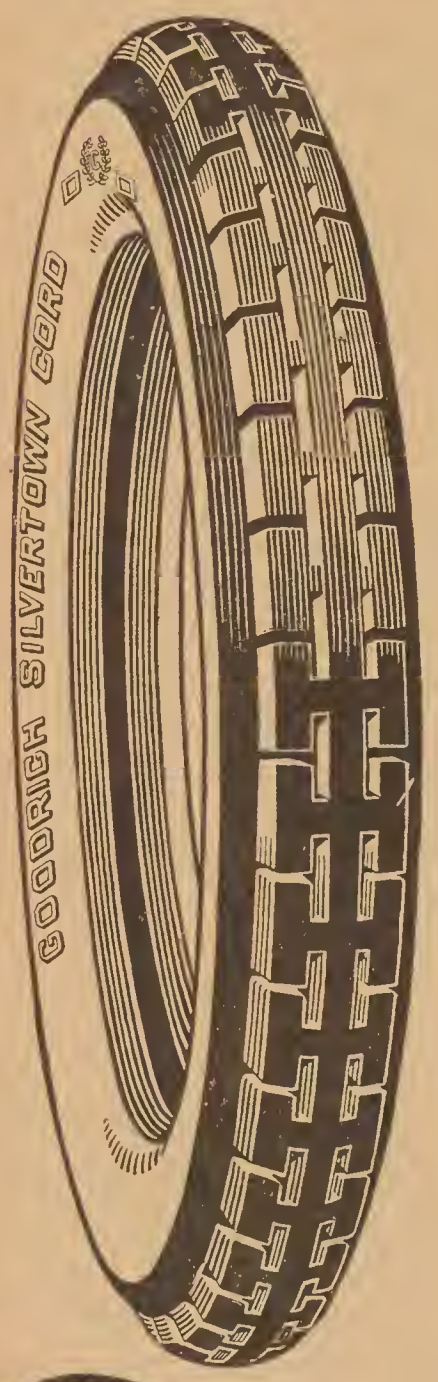
The Reasons inside the *hard-shell* fact



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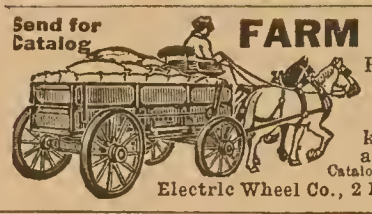

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Muckland Makes Money

But "Muckers" Also Have Their Sorrows

By PAUL WORK

THE great ice sheet that centuries ago covered the northern part of our country gave the vegetable grower of the present a rich asset. It happened like this. In one way and another the glacier gouged out hollows, dammed valleys, and piled debris about ice-masses which later melted. All of these processes resulted in the formation of ponds and lakes. Thousands of which still remain to lend an incomparable charm to the countryside. Others have been gradually filled by plants which grow and die leaving their remains but partially decomposed beneath the water which keeps out the oxidizing air. Not a few ponds may be found to represent even now the various stages in muckland building.

PAUL WORK

While muckland gardening is intensive, highly specialized and almost diametrically opposite to the methods of the general farmer, these areas are responsible for no small proportion of the 36,000 farmers in New York who are recorded as growing miscellaneous vegetables to sell. A farmer passes a few of the patches where the vivid green of celery or lettuce stands out against the dead black of the muck. An inquiry or two brings him stories of large returns per acre and he says, "Why, I have four or five acres like that." In hundreds of cases this is the beginning of a venture in a new style of farming, frequently successful, often not. Chances are much better if nearby "muckers" have established outlets for the produce and have become skilled in the practices.

Clearing Is a Big Job

The clearing of muckland is a big job. Growth is often dense and a world of roots and snags must be eliminated. Often the grade is bad and some years are usually required to bring it into good shape. Lands overgrown with deciduous trees such as elm, ash and alder, usually yield a better muck than those covered with conifers such as tamarack and arbor-vitae or white cedar. Clearing is often taken as a winter job and Italians are sometimes offered the privilege with the understanding that they are to grow and own the crops for the first two or three years. If one is willing to develop the land somewhat gradually, corn makes a good first crop. This may be followed by potatoes for seed and then it should be ready for one of the vegetables.

The leading muckland crops are celery, lettuce and onions, though carrots and spinach are also planted. Of the three leaders the onion is the most staple. Maturing at one time, and being less perishable, an isolated grower can more readily find market facilities for this than the others. Lettuce is very much of a gamble, both as regards the crop and its sale. Unfavorable weather may ruin a fine looking patch almost over night. Prices fluctuate widely on the various markets and the high quoting city is usually speedily made a dumping ground. The Empire State Vegetable Growers' Association is composed of four associations of lettuce growers and its officers are looking forward to the building of a State-wide system of distribution.

Setting Late Cabbage

The middle of June will find Central New York farmers busy setting cabbage. There are many factors to consider in deciding on the date. Domestic cabbage and Danish for fall shipment may be set a bit earlier than cabbage to be stored. Much more is lost by failure of heads to fill out and make full weight than from bursting. If heads tend to burst, a careful twist will loosen the roots just enough to check them without causing them to wilt. Another way is to set in a spade beside the maturest plants, Too early setting occasions some danger from maggots after they are in the field.

Cabbage may be set by hand, by hand transplanter, and by transplanting machine. The former is as good and probably as cheap as any, but the general farmer does not like to work that way. The two horse machine requires a large crew if it is to be kept going steadily—three on the machine and two men with another horse to keep it supplied with plants and water. The hand transplanter which drops a wee bit of water at each root, is in high favor with many growers who claim that two men setting and one serving can keep up with a machine crew, and do a better job with less replanting.

When the seedbed is screened against maggots, the cover should be removed a week or ten days before setting to permit the plants to harden off.

Cutworms

The cutworm is a selfish fellow. He takes a bite out of the stem of a plant, near the surface of the soil and leaves his victim prostrate and beyond recovery. He is fond of tomatoes, muskmelons, cabbage and in fact a wide variety of garden crops. He seems to prefer those that are tender and succulent. Hence thorough hardening appears to be a factor. Cutworms are worse after sod, and fall fallowing is recommended to discourage the laying of eggs. The best control measure is the use of poisoned bran mash made by mixing dry, twenty pounds of bran with one pound of paris green. Two quarts of a cheap syrup are dissolved in three and a half gallons of water and with this the bran is moistened. The mash is dropped late in the afternoon near the plants or along the row of closely planted crops. On limited areas, a careful search is not without value. Well does the writer remember the instruction of a well-known Jersey gardener who taught him how to find a tiny ridge near the melon plants that had been felled.

Nine Hundred Years on the Same Farm

(*Continued from page* 467)

Through all the centuries, it has been the humble farmer folk, like the Poublans, who have made the history of France so glorious. Without them, the beauties of Versailles, the glories of Paris, the wonders of French literature and art, would never have existed. It is they who sow the grain and harvest the wheat that feeds France. Unspoiled by the vice and hypocrisy of cities, they have cultivated their fields, exemplifying the cardinal virtues of sobriety, industry and loyalty. Ignoring the lure of the unknown, the appeal of adventure, the charm of the far away, they remain in their own little corner of France, performing each daily duty as it comes. Perhaps they lack polish, wit and charm, but they are rich in the qualities which caused Goldsmith to write:

> But a bold peasantry, their country's pride,
> When once destroyed can never be supplied.

During the World War, it was they who furnished the poilus that kept the German at bay during two and a half years before youthful America entered the conflict. They go piously to the church on Sunday. They provide the man-power, which in turn produces the money, necessary for the establishment of government, the encouragement of art, science and literature. In their hearts, there is no lust for power, no exaggerated ambitions, no hankering for the unattainable. And it will be a sad day for France if they ever disappear. Having peace, work, a humble home, something to eat and drink and wear, they are content.

To them may be applied the words written by Cato, the Roman, even centuries before the first Poublan: "The agricultural population produces the bravest men, the most valiant soldiers, and a class of citizens least of all given to evil designs."

League Prices For June $2.33

New York Farm News

THE Dairymen's League Cooperative Association, Inc. has voted the following prices for the month of June:

Class 1, for fluid consumption, $2.33.

Class 2, for cream and ice cream, $2.05.

Class 3, for milk used chiefly in the manufacture of evaporated, condensed and powdered milk and hard cheese, a differential of 65 cents above the price of milk going into the manufacture of butter.

Class 4, for milk used in the manufacture of butter and cheese, will be determined by the New York market quotations on these commodities.

Several changes have been decided upon in handling milk in classes 2, 3 and 4. Class 2 has been subdivided into three parts and differentials have been determined depending on the method in which the by-products are disposed of. By more efficiently disposing of by-products it is expected higher prices will be experienced by the farmers. This is particularly evident in class 3, which carried a differential of only 57 cents last month.

NEW YORK TO RIVAL FEDERAL EXHIBIT AT NATIONAL DAIRY SHOW

An exhibition showing in detailed form the value and importance of the New York State dairy industry is being planned by George E. Hogue, deputy commissioner of farms and markets for the National Dairy Show. Mr. Hogue completed an inspection at the State fair grounds yesterday to determine space requirements of the exhibit.

A graphic panorama of the State industry that will rank in completeness and beauty with the $25,000 government exhibit is planned by the State. In it New York's reasons for claiming leading place among the States in the industry will be brought out.

An appropriation of $20,000 to cover cost of the exhibit was made at the last session of the Legislature. The bill has not yet been signed by Governor Smith, but farm leaders have little doubt he will do so, for he urged its adoption in a special message.

One of the features of the exhibit will be an exposition of the State's work in protecting its citizens by a campaign to free its dairy cattle of tuberculosis.

Another feature, which will probably be incorporated, is the importance of increasing individual yield of dairy cattle in the State.

LEAGUE TO LOCATE PLANT AT FORT EDWARD

Officials of the Dairymen's League at a recent meeting appropriated $30,000 for a plant in Fort Edward, Washington County, N. Y. Several options have been taken on property in the village. The owners of the local (Morrisanna) plant have been approached with a proposition to sell their plant to the League. It is understood that if the local owners do not sell, the League will take up one of their options here and build a $30,000 receiving station similar to the one just completed in Cambridge.

The option that meets with the approval of the officers, who have been over the ground, is the old electric light property. This with land adjoining would give the desired size and in addition would have the accessibility of sewers and railroad siding.

POTATO GROWERS TO TOUR LONG ISLAND JUNE 20, 21, 22

Seed potato growers from New York, Maine, Vermont, Wisconsin, Minnesota, Michigan, New Jersey and other seed producing areas and Canada will be represented on the annual Long Island potato growers tour which starts from Mineola, Nassau County, on June 20, 21 and 22.

The tour offers seed potato growers an opportunity to establish direct personal contact with one of the greatest seed potato markets in the world. Estimates based on Census reports indicate that last year Long Island farmers grew over 35,000 acres of potatoes with a total production of approximately 7,000,000 bushels, about 20 per cent of the entire New York State potato crop. Considering the fact that Long Island potato growers depend almost entirely on other sections of the country for their seed, a market for nearly 500,000 bushels is thus opened to seed potato growers.

The tour consists of a two-day trip through eastern Suffolk County. The third day consists of visiting potato growers in western Suffolk and Nassau County.

NEW YORK HAS LARGER DELEGATION AT NATIONAL HOLSTEIN MEETING

New York State will be represented at the National Convention of the Holstein-Friesian Association of America, to be held at Cleveland, Ohio, June 6, 7 and 8, by the largest group of official representatives. The New York delegation will include 23 members. The next largest group will be from Wisconsin, which has 19 delegates.

The New York delegates are: C. F. Bigler, president of the New York State Holstein-Friesian Association; C. L. Amos, Syracuse; Dr. D. B. Armstrong, Watertown; Ward W. Stevens, Liverpool; H. F. Farrington, Lowville; A. A. Hartshorn, Hamilton; Prof. H. H. Wing, Ithaca; H. V. Noyes, Oneida; F. H. Stevens, Lacona; H. C. Wood, Morrisvile; George A. Abbott, Cortland; C. B. Marshall, Morrisville; R. E. Chapin, Batavia; Fred A. Blewer, Owego; Grant B. Low, New Berlin; Carl J. Schmid, Montgomery; Harry Yates, Orchard Park; F. M. Jones, Clinton; W. D. Robens, Poland; S. T. Wood, Liverpool; A. W. Brown, West Winfield; F. H. Thomson, Holland Patent; E. M. Hastings, Pulaski.

In addition to the official delegates, a large number of the state association expect to attend the meeting including: N. S. Prescott, M. C. Bond, W. R. Smith, W. M. Rider, as well as other well known breeders from other parts of the State.

On the two days following the meeting, a National Holstein Sale will be held under the auspices of the Ohio Holstein Association. New York State is sending two dozen of its finest specimens of the breed by special car. The consignment includes the new State champion senior 2-year old heifer with a record of 1,035 pounds of butter and 25,554 pounds of milk. She is consigned by George M. Smith of Watertown. The consignment was selected by the New York State Holstein-Friesian Association.

ALONG THE SOUTHERN TIER OF NEW YORK

Ground has been broken for a new community market at Binghamton, on the plot of ground given the City for this purpose by the Endicott-Johnson Company. The intention is to have it ready for business by the first of August. Farmers and city folks all hope so.

Baled hay brings $25 a ton in the Binghamton markets, and baled straw, $16. Some are paying $14 a ton for hay in the barn and the seller pitches it to the press.

The pine grove on the North Farm at East Maine is being cut down and the logs sent to the mill. At Union Centre there is another skidway of pine logs, larger than any seen in recent years. But the farmers in that neck of the woods have set out a good many seedling pines and other varieties of wood this spring. That is right. Keep the woods growing.

On May 22, much of the hill land was too wet and cold to work. Many farmers have not yet sowed their oats and very little corn or potatoes have been planted. Good warm weather is sorely needed.

If it is farm news, you will see it in the American Agriculturist.

You Can Buy a De Laval for $50 and Up—On Such Easy Terms that It Will Pay for Itself

Don't get the idea that a De Laval Cream Separator is high priced because it is the best. Considered on the basis of service a De Laval is the cheapest separator made. A De Laval costs a little more to begin with but lasts three or four times longer, and does better work all the time.

You can get a De Laval for as low as $50, and up, depending on the amount of milk you have to separate. No matter if you have one or a thousand cows, there is a De Laval just right for you. And you can buy a De Laval on such liberal terms that it will pay for itself while you are using it.

When you get a De Laval you not only get the best separator service for the longest time, at the least expense—on the easiest terms, if desired—but you can see what you are buying. You can try it; your local De Laval dealer will instruct you in its use and provide service should it ever be necessary; and you can always get parts from the De Laval Company at any time during the 20 to 30 years, or more, your machine should last. These important considerations are sometimes overlooked.

See the new 1923 De Laval at your local dealer's store. It is the best cream separator ever built. It has many improvements, skims cleaner, requires less care, and will last longer than any cream separator on the market.

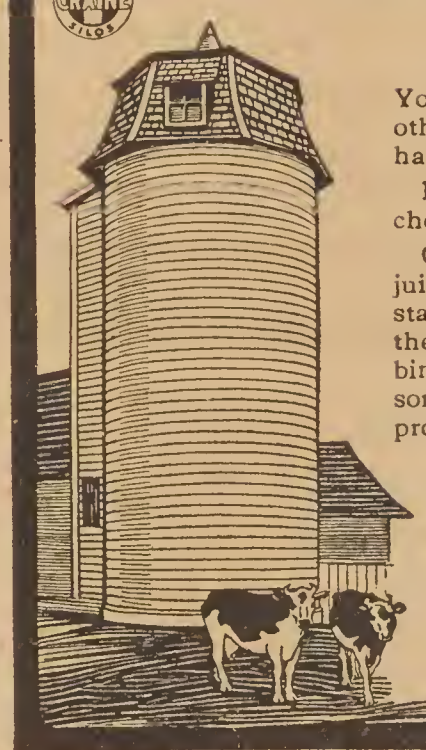
You may be losing enough butter-fat with your present separator or by hand skimming to pay for a new De Laval every year and not getting it. If you do not know the name of your nearest De Laval agent, write us direct for complete information.

The De Laval Separator Co.

NEW YORK 165 Broadway — CHICAGO 29 E. Madison St. — SAN FRANCISCO 61 Beale St.

Sooner or later you will use a De Laval Cream Separator and Milker

CRAINE TRIPLE WALL SILOS



Lasting Satisfaction

You can easily tell a Craine 3-Wall Silo from any other. It is the only manufactured wood silo that has neither hoops nor lugs to hold it together.

It gives its owner lasting satisfaction. It is the cheapest silo to own. It stays put without tinkering.

Craine Silos are constructed to keep warmth and juices in; to keep cold and weather out. A strong stave silo inside is covered with thick Silafelt, and the patented, Crainelox Spiral Covering outside binds the entire structure. This forms a handsome building with every square inch of surface protected in every direction.

Any old stave, iron-hooped silo can be rebuilt into a permanent Craine 3-Wall Silo at about half the cost of a new one.

Send for handsome illustrated catalog

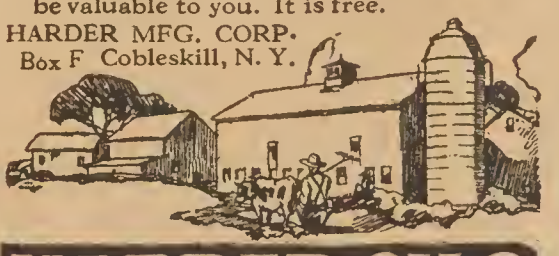
CRAINE SILO CO.,
Box 120 Norwich, N.Y.

Why a Harder stands erect

HEAVY, rigid door-system, solid staves with heavy tongue-and-groove, patent spline-dowel system, substantial base-anchorage—these vital features make and keep Harder Silos erect and dependable.

Our book, "Saving with Silos." will be valuable to you. It is free.

HARDER MFG. CORP.
Box F Cobleskill, N. Y.



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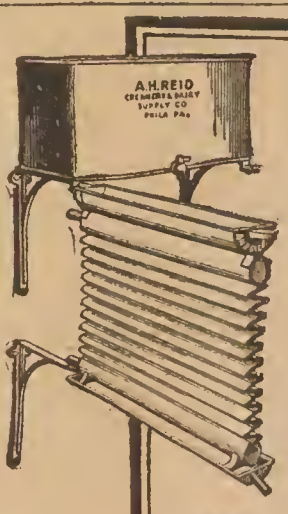

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Advertisements are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

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Our Advertisements Guaranteed

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

Every week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS — BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

BRED TO LAY—Day-old chicks, S. C. White Leghorns: May, $15 per 100; June, $12 per 100. Barred Rocks, Reds, White Wyandottes: May, $18 per 100; June, $14 per 100. Eggs at $5 per 100. Giant Pekin Duckling, 25 cents each. Eggs, $1.50 per 11. All orders postpaid. P. H. PORAY, R. 2, Williamson, N. Y.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

Of American Agriculturist published weekly at 416 W. 13th St., New York, N. Y., for April 1, 1923.

State of New York, County of New York, ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Henry Morgenthau, Jr., who, having been duly sworn according to law, deposes and says that he is the president of American Agriculturist, Inc., and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and address of the publisher, editor, managing editor and business managers are:

Publisher, Henry Morgenthau, Jr., 35 West 81st St., New York, N. Y.; Editor, E. R. Eastman, 1503 Miller St., Utica, N. Y.; Managing Editor, E. R. Eastman, 1503 Miller St., Utica, N. Y.; Business Manager, Henry Morgenthau, Jr., 35 West 81st St., New York, N. Y.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and address of stockholders owning or holding 1 per cent or more of the total amount of stock.) American Agriculturist, Inc., New York, N. Y.; Henry Morgenthau, Jr., 35 West 81st St., New York, N. Y.; Henry Morgenthau, 30 West 72d St., New York, N. Y.; Elinor F. Morgenthau, 35 West 81st St., New York, N. Y.; E. R. Eastman, 1503 Miller St., Utica, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

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That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

Henry Morgenthau, Jr.
President.

Sworn to and subscribed before me this 2nd day of April, 1923.

(Seal) Elsie B. Ganz (Weiss).

(My commission expires March, 1925.)

SWINE

PIGS FOR SALE—365 Chester and Yorkshire cross and Berkshire and Chester cross, 8 weeks old, $6 each. Ready for shipment by June 1st. Bred from large type of sows and boars. Pigs that are worthwhile feeding. Also 60 of a very select lot of Chester and Yorkshire cross, 10 weeks old; these are little beauties, at $7.50 each. Will ship any number of either lot C. O. D. for your approval. ABERJONA FARM, Box 83, Woburn, Mass.

PIGS FOR SALE — 75 Chester and Yorkshire cross and Berkshire and Chester cross, barrows, boars and sows. This is an extra fine lot of pigs, bred from large stock; pigs, 7 to 8 weeks old $6 each; and 9 weeks old, $6.50 each. Also a very select lot of Berkshire and Yorkshire cross, 10 weeks old, at $7 each. Will ship any amount of the above lots C. O. D. on approval. A. M. LUX, 206 Washington Street, Woburn, Mass.

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PIGS! PIGS! PIGS! — The best registered Chester White, 8 weeks old. Satisfaction guaranteed. $10 each prepaid. CLARENCE BEY, Clarington, Ohio.

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REGISTERED HAMPSHIRE PIGS—Ready to ship; either sex, $15. BEN S. CONDON, Wayville, N. Y.

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ENGLISH AND WELSH SHEPHERDS, 30 generations, breeding from proven Sires and Dams from natural herders, 4 months old pups working with old dogs. Order early. GEORGE BOORMAN, Marathon, N. Y.

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CATTLE

TWO REGISTERED GUERNSEY Bull Calves, three weeks old, fine individuals, popular May Rose breeding. Price, $25 each. Order direct from this ad. Satisfaction guaranteed. SUNNYSIDE FARM, Union Springs, N. Y.

FOR SALE—Registered Holstein Bull, Homebrook Jim Segis Parthenea, 3 years old. Registered Holstein Bull Calf, 3 months old. MADDEN BROS., Mayville, N. Y.

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TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point. Ohio.

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HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, Roxbury, N. Y.

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CABBAGE AND TOMATO PLANTS—Field grown, any variety, wholesale and retail, 50 cents per 100; $1 per 300; $1.75 per 500; $2.25 per 1,000, postpaid. Special prices in large quantities. Satisfaction guaranteed or money refunded. THE DIXIE PLANT COMPANY, Franklin, Va.

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FARM FOR SALE — 100 miles from New York. 487 acres, 100 acres fertile tillage, stream watered, wire fenced, 100,000 feet pine, valuable cordwood, 2 orchards, 10-room residence, 3 large barns, other out-buildings, implements, horses, stock and fodder included. Selling on account of old age. Price $8,700. A. KAERCHER, Wawarsing, Ulster County, N. Y.

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ALL men, women, boys, girls, 17 to 60, willing to accept Government positions. $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, Mo., immediately.

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PINE TREE DOUBLE UNIT MILKER—Engine and pump, used one year, $140. Huber 12-25 tractor in splendid order, $300. H. VAN KUREN, Rummerfield, Pa.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

DODD & STRUTHERS' copper cable lightning rod; 1,700 feet and fixtures at agents' wholesale price. BOX 166, Mariaville, N. Y.

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Repeated demonstrations under practical conditions have proved the value of the purebred dairy bull in increasing milk and butter-fat yield.

Buy a Purebred Bull—

Generally these increases are 100 per cent for both milk and fat in two generations--many very much higher.

Let him be a good individual of any of the dairy breeds, but he should be from ancestors whose ability to produce has been proved.

Naturally, we would like to tell you about Holsteins.

EXTENSION SERVICE
The Holstein-Friesian Association of America
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USE PUREBRED BULLS

HIGH-GRADE HOLSTEIN COWS fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.
Browncroft Farm McGRAW New York

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Glista Heifer Calves

SIRE: Korndyke Pontiac Glista, No. 268342, a grandson of the great Cornell cow, Glista Ernestine with seven records of over 30 lbs. butter in 7 days. Best record 677.3 lbs. milk, 34.22 lbs. butter 7 days.

These calves are from high producing dams, most of which have good A. R. O. records. Price ranging from $50 to $75 according to record and breeding of dam. Herd is T. B. tested.

BRADLEY FULLER, Utica, N. Y.

FOR SALE

GUERNSEYS——HOLSTEINS

Otsego Co. has 820 herds of cattle tuberculin tested and under Federal supervision, from which we purchase our supply.

We endeavor to have on hand 50 head of high-grade, high-producing cattle.

Hindsdale Farm, Springfield Center, N. Y.

HOLSTEIN BULLS FOR SALE

Sons of

DUTCHLAND COLANTHA SIR INKA

FISHKILL FARMS, Hopewell Junction, N. Y.

HENRY MORGENTHAU, Jr., Owner

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HOLSTEIN BULL Born Dec. 7th, 1921. Sired by a 33-pound Son of King of the Pontiacs, Dam is 24.95-pound daughter Changeling Butter Boy. He is nicely marked, splendid individual, well grown and ready for service. Priced to sell.
FRED. A. BLEWER
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Fresh cows and springers, 100 head of the finest quality to select from. Address
A. F. SAUNDERS, CORTLAND, N. Y.

HOLSTEINS

Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. J. A. LEACH, CORTLAND, N. Y.

HIGH GRADE HOLSTEIN HEIFER CALVES $15 each; registered bull and heifer calves, $25 up; registered bulls ready for service, and cows. Address
SPOT FARM, TULLY, N. Y.

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PIGS FOR SALE

Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.00 each. 8 to 9 weeks old, $6.50 each.

15 Duroc and Berkshire cross. Fine feeders, 8 to 10 weeks old, $7.00 each.

Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.

K. H. SPOONER, WALTHAM, MASS.

LARGE BERKSHIRES AT HIGHWOOD
Grand champion breeding. Largest herd in America. Free booklet.
HARPENDING Box 10 DUNDEE, N. Y.

Big Type Polands Boars, Sows and Pigs for sale; good ones; low prices. Write me. G. S. HALL, FARMDALE, OHIO.

REGISTERED O. I. C. AND CHESTER WHITE PIGS. E. P. ROGERS, WAYVILLE N. Y.

The Brown Mouse — *By Herbert Quick*

HE dropped into his chair, while the secretary drew from his portfolio a contract duly drawn up save for the signatures of the officers of the district, and the name and signature of the teacher-elect. This he calmly filled out, and passed over to the president, pointing to the dotted line. Mr. Bronson would have signed his own death-warrant at that moment, not to mention a perfectly legal document, and signed with Peterson and Bonner looking on stonily. The secretary signed and shoved the contract over to Jim Irwin.

"Sign there," he said.

Jim looked it over, saw the other signatures, and felt an impulse to dodge the whole thing. He could not feel that the action of the board was serious. He thought of the platform he had laid down for himself, and was daunted. Then he thought of Jennie Woodruff's "Humph!"—and he signed!

"Move we adjourn," said Peterson.

"No 'bjection 'tis so ordered!" said Mr. Bronson.

The secretary and Jim went out, while the directors waited.

"What the Billy—" began Bonner, and finished lamely. "What for did you vote for the dub, Ez?"

"I voted for him," replied Bronson, "because he fought for my boy this afternoon. I wanted him to have *one* vote."

"An' I wanted him to have wan vote, too," said Bonner. "I thought mesilf the only dang fool on the board—an' he made a spache that airned wan vote—but f'r the love of hivin, that dub f'r a teacher! What come over you, Haakon—you voted f'r him, too!"

"Ay vanted him to have one wote, too," said Peterson.

And in this wise, Jim became the teacher in the Woodruff District—all on account of Jennie Woodruff's "Humph!"

CHAPTER III

WHAT IS A BROWN MOUSE

IMMEDIATELY upon the accidental election of Jim Irwin to the position of teacher of the Woodruff school, he developed habits somewhat like a ghost's or a bandit's. That is, he walked of nights and on rainy days.

On fine days, he worked in Colonel Woodruff's fields as of yore. Had he been appointed to a position attached to a salary of fifty thousand dollars a year, he might have spent six months on a preliminary vacation in learning something about his new duties. But Jim's salary was to be three hundred and sixty dollars for nine months' work in the Woodruff school, and he was to find himself—and his mother.

The Simms family, being from the mountings of Tennessee, were rather startled one night, when Jim Irwin, homely, stooped and errandless, silently appeared in their family circle about the front door. They had lived where it was the custom to give a whoop from the big road before one passed through the palin's and up to the house. Otherwise, how was one to know whether the visitor was friend or foe?

From force of habit, Old Man Simms started for his gun-rack at Jim's appearance, but the Lincolnian smile and the low slow speech, so much like his own in some respects, ended that part of the matter. Besides, Old Man Simms remembered that none of the Hobdays, whose hostilities somewhat stood in the way of the return of the Simmses to their native hills, could possibly be expected to appear thus in Iowa.

"Stranger," said Mr. Simms, after greetings had been exchanged, "you're right welcome, but in my kentry you'd find it dangersome to walk in this-away."

"How so?" queried Jim Irwin.

"You'd more'n likely git shot up some," replied Mr. Simms, "onless you whooped from the big road."

"I didn't know that," replied Jim. "I'm ignorant of the customs of other countries. Would you rather I'd whoop from the big road—nobody else will."

"I reckon," replied Mr. Simms, "that we-all will have to accommodate our-se'ves to the ways hyeh."

Evidently Jim was the Simms' first caller since they had settled on the little brushy tract whose hills and trees reminded them of their mountains. Low hills, to be sure, with only a footing of rocks where the creek had cut through, and not many trees, but down in the creek bed, with the oaks, elms and box-elders arching overhead, the Simmses could imagine themselves beside some run falling into the French Broad, or the Holston. The creek bed was a withdrawing room in which to retire from the eternal black soil and level cornfields of Iowa. What if the soil was so poor, in comparison with those black uplands, that the owner of the old wood-lot could find no renter? It was better than the soil in the mountains, and suited the lonesome Simmses much more than a better farm would have done. They were not of the Iowa people anyhow, not understood, not their equals—they were pore, and expected to stay pore—while the Iowa people all seemed to be either well-to-do, or expecting to become so. It was much more agreeable to the Simmses to retire to the back wood-lot farm with the creek bed running through it.

Jim Irwin asked Old Man Simms about the fishing in the creek, and whether there was any duck shooting spring and fall.

"We git right smart of these little panfish," said Mr. Simms, "an' Calista done shot two butterball ducks about 'tater-plantin' time."

Calista blushed—but this stranger, so much like themselves, could not see the rosy suffusion. The allusion gave him a chance to look about him at the family. There was a boy of sixteen, a girl—the duck-shooting Calista—younger than Raymond—a girl of eleven, named Virginia, but called Jinnie—and a smaller lad who rejoiced in the name of McGeehee, but was mercifully called Buddy.

Calista squirmed for something to say. "Raymond runs a line o' traps when the fur's prime," she volunteered.

THEN came a long talk on traps and trapping, shooting, hunting and the joys of the mountings—during which Jim noted the ignorance and poverty of the Simmses. The clothing of the girls was not decent, according to local standards; for while Calista wore a skirt hurriedly slipped on, Jim was quite sure—and not without evidence to support his views—that she had been wearing when he arrived the same regimentals now displayed by Jinnie—a pair of ragged blue overalls. Evidently the Simmses were wearing what they had and not what they desired. The father was faded, patched, gray and earthy, and the boys looked better than the rest solely because we expect boys to be torn and patched. Mrs. Simms was invisible except as a gray blur beyond the rain-barrel, in the midst of which her pipe glowed with a regular ebb and flow of embers.

On the next rainy day Jim called again and secured the services of Raymond to help him select seed corn. He was going to teach the school next winter, and he wanted to have a seed-corn frolic the first day, instead of waiting until the last—and you had to get seed corn while it was on the stalk, if you got the best. No Simms could refuse a favor to the fellow who was so much like themselves, and who was so greatly interested in trapping, hunting and the Tennessee mountains—so Raymond went with Jim, and with Newt Bronson and five more they selected Colonel Woodruff's seed corn for the next year, under the colonel's personal superintendence.

IN the evening they looked the grain over on the Woodruff lawn, and the colonel talked about corn and corn selection. They had supper at half past six, and Jennie waited on them—having assisted her mother in the cooking. It was quite a festival. Jim Irwin was the least conspicuous person in the gathering, but the colonel, who was a seasoned politician, observed that the farm-hand had become a fisher of men, and was angling for the souls of these boys, and their interest in the school. Jim was careful not to flush the covey, but every boy received from the next winter's teacher some confidential hint as to plans, and some suggestion that Jim was relying on the aid and comfort of that particular boy. Newt Bronson, especially, was leaned on as a strong staff and a very present help in time of trouble. As for Raymond Simms, it was clearly best to leave him alone. All this talk of corn selection and related things was new to him, and he drank it in thirstily.

"Jennie," said Colonel Woodruff, after the party had broken up, "I'm losing the best hand I ever had, and I've been sorry."

"I'm glad he's leaving you," said Jennie. "He ought to do something except work in the field for wages."

"I've had no idea he could make good as a teacher—and what is there in it if he does?"

"What has he lost if he doesn't?" rejoined Jennie. "And why can't he make good?"

"The school board's against him, for one thing," replied the colonel. "They'll fire him if they get a chance. They're the laughing-stock of the country for hiring him by mistake, and they're irritated."

"If he could *feel* like anything but an underling, he'd succeed," said Jennie.

"That's his heredity," stated the colonel, whose live-stock operations were based on heredity. "Jim's a scrub, I suppose; but he acts as if he might turn out to be a Brown Mouse."

"What do you mean pa," scoffed Jennie—"a Brown Mouse!"

"A fellow in Edinburgh," said the colonel, "crossed the Japanese waltzing mouse with the common white mouse. Jim's peddling father was a waltzing mouse, no good except to jump from one spot to another for no good reason. Jim's mother is an albino of a woman, with all the color washed out. Jim ought to be a mongrel, and I've always considered him one. But the Edinburgh fellow every once in a while got out of his variously-colored, waltzing and albino hybrids, a brown mouse. It wasn't a common house mouse, either, but a wild mouse unlike any he had ever seen. It ran away, and bit and gnawed, and raised hob. It was what we breeders call a Mendelian segregation of genetic factors that had been in the waltzers and albinos all the time—their original wild ancestor of the woods and fields. If Jim turns out to be a Brown Mouse, he may be a bigger man than any of us. Anyhow, I'm for him."

"He'll have to be a big man to make anything out of the job of a country school-teacher," said Jennie.

"Any job's as big as the man who holds it down," said her father.

Next day, Jim received a letter from Jennie.

"Dear Jim," it ran. "Father says you are sure to have a hard time—the school board's against you, and all that. But he added, 'I'm for Jim, anyhow!' I thought you'd like to know this. Also he said, 'Any job's as big as the man who holds it down.' And I believe this also, *and I'm for you too!* You are doing wonders even before the school starts in getting the pupils interested in a lot of things, which, while they don't belong to school work, will make them friends of yours. I don't see how this will help you much, but it's a fine thing, and shows your interest in them. Don't be too original. The wheel runs easiest in the beaten track.

"Yours, Jennie."

Jennie's caution made no impression on Jim—but he put the letter away, and every evening took it out and read the italicized words, "*I'm for you, too!*" The colonel's dictum, "Any job's as big as the man who holds it down," was an Emersonian truism to Jim. It reduced all jobs to an equality, and it meant equality in intellectual and spiritual development. It didn't mean, for instance, that any job was as good as another in making it possible for a man to marry—and Jennie Woodruff's "Humph!" returned to kill and drag off her "I'm for you, too!"

CHAPTER IV

THE FIRST DAY AT SCHOOL

I SUPPOSE every reader will say that genius consists very largely in seeing Opportunity in the set of circumstances or thoughts or impressions that constitute Opportunity, and making the best of them.

Jim Irwin would have said so, anyhow. He was full of his Emerson's *Representative Men*, and his Carlyle's *French Revolution*, and the other old-fashioned, excellent good literature which did not cost over twenty-five cents a volume; and he had pored long and with many thrills over the pages of Matthews' *Getting on in the World*—which is the best book of purely conventional helpfulness in the language. And his view of efficiency was that it is the capacity to see opportunity where others overlook it, and make the most of it.

All through his life he had had his own plans for becoming great. He was to be a general, hurling back the foes of his country; he was to be the nation's master in literature; a successful drawing on his slate had filled him with ambition of becoming a Rubens—and the story of Benjamin West in his school

(*Continued on page* 476)

WHAT HAS HAPPENED?

WHEN Jennie Woodruff said "Humph!" Jim Irwin decided that he would be something besides her father's field hand after all. He had often expressed his opinion of what a rural school should be, and through a fluke is elected to the vacant position of school-teacher and must make good his theories.

Among Jim's loyal adherents is 17-year old Newton Bronson, whose truancy and pool-playing are making him a local problem. Jim fights for Newton in a roadside argument and as a result Mr. Bronson nominates him for the position.

They looked the grain over on the Colonel's lawn

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A Visit With Mrs. Edward Young

Women Learn Civics by Practical Work, She Says, Not by Theory Alone

By GABRIELLE ELLIOT

A FEMINIST in the best sense of that much abused but expressive word is Mrs. Edward Young, mother of six children, head of a busy household, yet actively interested in the affairs of her community, not only as they react upon her own family, but as they affect other women and their children. A born home-maker, Mrs. Young carries her home-making instinct outside her own four walls, and as a result many other families benefit by her alert, energetic, good-humored insistance on applying the virtues of the good housekeeper to public as well as private life.

Some years ago, when the six little Youngs were even littler (in fact, several of them are now considerably taller than their mother, and the oldest daughter is working as a trained dietitian) Mrs. Young was pitchforked, more or less, into public life, and has remained there ever since. Just now she is chiefly known to New York women as a very busy and very effective speaker for the work of the Committee of 21, on which she has served for the last three years. But the story of her public activity goes back much farther than that.

I found Mrs. Young, one of those bleak gray days which passed for spring on the calendar, "resting" at home for a day, between a flying trip to Albany in the interest of the school bill and an equally urgent call to a Grange meeting in the opposite direction. "Resting" means about as active a twelve-hour day as even a farmer's wife can put in, but between hurried visits to kitchen, telephone and upstairs regions, she found time to sit down and chat in the front room of the comfortable old house in Milton, Ulster county, where Mr. Young's family has been established for generations.

Mrs. Edward Young is the first of a group of prominent farm women, each working out her home and community problems with typical American resourcefulness, to be interviewed by the Household Editor for the readers of the American Agriculturist.

Mrs. Thomas Powell of Long Island will be the next home-maker to talk through the pages of the magazine.

"I frankly admit that at times I neglect my family—and I don't think it hurts them a bit," stated Mrs. Young gravely, but with a twinkle in her eye. "They've learned to be ever so self-reliant, and then, too, when I do come home, they appreciate me all the more!

"But, I must also admit that I'm just a wee bit tired of doing so much outside work, and that when this school bill finally goes through—as it eventually will—I mean to stay home and enjoy my family a little," she added seriously. "The school situation, though, is one that needs the active work of every one of us, and having been the oldest of twelve, to say nothing of raising six children myself, I have had plenty of opportunity to see our school system at close range and to understand its defects and its virtues. It has both."

Mrs. Young, though long an active worker for suffrage, assumed her first public position in 1912. As might have been expected, because of her special interest in the subject, it was as a school director.

Her Experience as a Law-Breaker

"It was rather funny the way it happened," said Mrs. Young, with a reminiscent chuckle. She evidently enjoys a joke on herself as much as any other sort. "As a matter of fact, not being a voting citizen, I hadn't any right to run or be elected. But I didn't know that and neither, apparently, did the men who put me in.

"You'll remember that the law providing for directors of schools to meet every five years, was passed in 1912. I was nominated by the Republicans. The Democrats refused to nominate another candidate. So—and this is where the trick came in—I was unanimously elected. Then when the legality was questioned, I couldn't be removed because I really had been appointed by unanimous public opinion. On legal advice, I attended the director's conference, a bit in hope, I confess, that my right to do so would be challenged, so that I might have a chance to argue the point. I was the only woman there, but was heartily welcomed and didn't have to defend myself. I've been a director ever since, too."

At this point two junior Youngs joined in the interview; one a twelve year old boy, and the other the sturdy eight year old girl, just home from school, who appears in the picture as the baby of the family. They helped to study seriously over the collection of the snapshots and to decide which was the best to appear in the American Agriculturist.

"I'm a very strong supporter of the Home Bureau," said Mrs. Young, when this important question had been decided. "To my mind, it serves as a central point on which all women, no matter what their individual interests, can focus. I think there are too many organizations now-a days, and a small community cannot begin to support all the good ones. Under the Home Bureau plan, small groups can come together according to the subjects which interest them—civics, flower raising, literature, dressmaking—and yet the strength of the whole is behind each branch. Thus the women all get what they want, yet they pull together and not apart.

"The part which women should take in politics is now very much in the public eye," went on Mrs. Young, after a little excursion to attend to some household emergency. "I believe that many women, in saying they are interested in civics, mean politics.

"But women really cannot take their part in political life as yet. The system, or technique, you might call it, has been too long developing to be grasped over night. Yet, I certainly agree the women should learn to take their share of political responsibility.

Learn Citizenship by Doing

"I believe therefore that each woman should have some one definite interest, such as the school situation. By studying it in all its aspects and by working to improve it, a woman makes herself a better citizen. It is the old idea of learning by doing. She not only improves the schools, but gets a thorough training in civics and politics at the same time. I'm a great believer in the ability and high purpose of my own sex, but I would urge all women to begin in a simple way, near home to study their own community, and thus gradually to work into the more complicated scheme of things in county, state and nation.

"Well, there you have about all I can say. As a farm woman, I don't feel that I've had any sort of 'career' or any great success that would interest other women. My aim has been to be, if possible, a successful home-maker, but I can assure you I'm decidedly conscious of my limitations!"

The interview was over, so far as Mrs. Young was concerned, but there seemed still a good deal to be said about her garden, about her church, where she is an active worker, and its Sunday-school, about the school where her children go and where hot lunches are now under discussion, and of course, about hospitable Mr. Young, sick at home with the grippe, but still willing to have a strange visitor welcomed for the day, and the four boys and two girls who make up the next generation. In the midst of it all, a mud-splashed Ford honked at the gate and soon rattled off down the precipitous hills with which that part of the Hudson River shore is blessed, carrying the visitor back to the little Milton station a mile or so away.

The Brown Mouse

(*Continued from page* 475)

reader fanned this spark to a flame; science, too, had at times been his chosen field; and when he had built a mouse-trap which actually caught mice, he saw himself a millionaire inventor. And all the time, he was barefooted, ill-clad and dreamed his dreams to the accompaniment of the growl of the plow cutting the roots under the brown furrow-slice.

As for this new employment, he saw no great opportunity in it. Of any spark of genius he was to show in it, of anything he was to suffer in it, of those pains and penalties wherewith the world pays its geniuses, Jim Irwin anticipated nothing. He went into the small, mean, ill-paid task as a part of the day's work, with no knowledge of the stirring of the nation for a different sort of rural school, and no suspicion that there lay in it any highway to success in life.

But, true to his belief in honest thorough work, he examined his field of operations. His manner of doing this seemed to prove to Colonel Woodruff, who watched it with keen interest as something new in the world, that Jim Irwin was possibly a Brown Mouse. But the colonel knew only a part of Jim's performances. He saw Jim clothed in slickers, walking through rainstorms to the houses in the Woodruff District, as greedy for every moment of rain as a haymaker for shine; and he knew that Jim made a great many evening calls.

But he did not know that Jim was making what our sociologists call a survey. For that matter, neither did Jim; for books on sociology cost more than twenty-five cents a volume, and Jim had never seen one. However, it was a survey. To be sure, he had long known everybody in the district, save the Simmses—and he was now a friend of all that exotic race; but there is knowing and knowing. He now had note-books full of facts about people and their farms. He knew how many acres each family possessed, and what sort of farming each husband was doing. He knew whether the family atmosphere was happy and contented, or the reverse. He knew which boys and girls were wayward and insubordinate. He made a record of the advancement in their studies of all the children, and what they liked to read. He knew their favorite amusements. He talked with their mothers and sisters —not about the school, to any extent, but on the weather, the horses, the automobiles, the silo-filling machinery and the profits of farming.

Really, though Jennie Woodruff did not see how such doings related to school work, Jim Irwin's school was running full blast in the homes of the district and the minds of many pupils, weeks and weeks before he called them to order on the first day of school.

(*Continued next week*)

GUESS WHO THIS IS?

SHE is a good cook, a good dressmaker, a good housekeeper, but more than that. She knows how to raise flowers, vegetables, chickens and bees; how to milk, churn and can; but she knows more than that. She is a shrewd buyer, a careful executive, a good all-round business woman; but she is even more than that. She is the wife of the most important man in the world and the mother of the men who have made America. She is the American farmer's wife.

In the Realm of the Home Maker

The Newest Patterns, Recipes and Time Saving Suggestions are Here

OVERBLOUSES are the height of style this year and the new materials are so pretty that every woman wants several different blouses just for variety. **No. 1710** is an easy-to-make, economical - of - material style, and one which a young girl or older woman could wear equally well.

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This comfortable negligee shirt, **No. 1759**, suitable for man or boy, comes in sizes 12½, 13, 13½, 14, 14½, 15, 15½, 16, 16½, 17, 17½, 18, 18½ and 19 inches neck measure. Size 12½ requires 1⅞ yards of 36-inch material. **Price, 12c.**

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SPRING ASPARAGUS IS HERE

Asparagus has been too much regarded as a delicacy and not sufficiently appreciated as a vegetable. It is an unusually nourishing food and tempts if well prepared.

Although asparagus is generally used as a salad, or boiled and served as a vegetable, it is capable of many combinations with other vegetables and with meats. Some good recipes are as follows:

Asparagus Cream Omelet

Stir 1 heaping tablespoonful of butter, and 1 tablespoonful of flour together. Set the saucepan over the fire and when well blended add 1 cupful of milk, stir until smooth, add a teaspoonful of chopped parsley, remove from the fire, and cool. Beat 3 eggs, separately, the whites to a stiff froth, add the yolk to the cold sauce, with a teaspoonful of salt and a dash of red pepper; add also 1 cupful of cooked asparagus tips and the stiffly beaten whites of the eggs. Put a tablespoonful of butter in a hot frying pan, when it is brown, pour in the mixture, break it in places with a fork to allow the uncooked portion to run down. When it is set, place in a hot oven for five minutes, double over and serve.

Asparagus Sandwiches

Chop fine one hard boiled egg, four strips of browned left over bacon, and 6 or more asparagus tips. Mix well with any favorite boiled dressing and spread between thin slices of white bread.

Asparagus on Toast

Boil the asparagus as you desire. Toast slices of bread. Dip quickly in the water in which the asparagus was cooked, and butter. Lay several stalks of asparagus on each slice, arrange on platter, season with salt and pepper and melted butter.

Cream of Asparagus Soup

Break the tender part of one large or two small bunches of asparagus into pieces about one inch long, cook in just enough salted water to keep from burning. Cook in a separate kettle six or eight potatoes cut in quarters. When done, pour off water, put potatoes and asparagus together with water it was cooked in, into your serving dish, add a generous piece of butter, a little salt and pepper and 1 cupful of heavy cream. Milk may be used instead of cream, if thickened to the consistency of cream.

Asparagus with Cauliflower

Cut the stalks in half and the lower part should be cooked for three-quarters of an hour. Then add the tops and cook for 10 or 15 minutes. By this method both parts become just right. The stalk is tender throughout, and the tops do not fall all to pieces. In the meanwhile, boil a head of cauliflower in slightly salted water until tender. Then arrange the head of cauliflower in a large dish with the asparagus tumbling down the sides of it. A few cucumber pickles may be added for variety.—H. A. LYNAN.

FLAWLESS FLOORS

The kitchen floor probably gets the hardest wear of any floor in the house. Specialists at the school of home economics offer suggestions on the floors and floor coverings that wear well and at the same time are attractive.

Linoleum is made of cork or wood pulp pressed in linseed oil. There are two kinds—the printed, the pattern being stamped on and wearing off with usage; and the inlaid, with the pattern extending through the material to the fabric. Though the first expense is greater, it is economy to buy the inlaid, since with proper care it will last many years. It is easy to keep clean and comfortable to work on. The floor underneath should be smooth and well laid or the linoleum will wear unevenly and crack.

Hints on Laying Linoleum

The linoleum may be tacked or cemented to the floor. Tacking is simpler, but cementing makes the seams and edges water-tight. The quarter-round molding along the floor of the baseboard should be removed and the linoleum cut in strips running lengthwise of the boards. If it is to be tacked, the strips should be fitted snugly together along the seams, but should not be fastened for three or four weeks, for linoleum usually expands when laid on a floor and if tacked down at once will buckle.

Linoleum may be cemented at the seams and edges directly to a wood floor or permanently cemented down firmly over a layer of deadening felt paper that has itself been pasted to the floor. Some manufacturers and dealers furnish printed directions for this method. The cement used should be waterproof and contain no silicate of soda (water glass) because this is injurious to the linoleum when moisture comes in contact with it.

Something about Floors

Plain wood floors well-laid, and treated frequently with pure boiled linseed oil, are comfortable, do not show grease spots, and are easy to keep clean.

Painted floors are comfortable to work on, but need a coat of paint two or three times a year to keep in good condition. According to the United States Bureau of Standards, the first coat should consist of white lead in linseed oil, with a little drier; the second coat, of equal parts of white lead and zinc white in oil, coloring matter as desired, and drier and turpentine to give a flat finish; and the third coat of the same materials as the second, except that instead of turpentine good floor varnish should be added in the proportion of 1 to 4 pints to a gallon of paint. Each coat of paint should be thoroughly brushed into the wood, lengthwise of the grain, and allowed ample time to dry. If desired, a coating of equal parts of turpentine and linseed oil may be rubbed on with a soft cloth after the last coat of paint has thoroughly dried, and the floor then polished with a woolen cloth.

Tile floors are sanitary and durable, but are considered hard to stand on. Carpet and matting should never be used, since they are very unsanitary. However, if nothing else is available, a few rag rugs or strips of carpet that may easily be taken up and washed can be used around the stove and sink to save tired feet. Rubber mats are most desirable for use over hard surfaced floors.

WOMEN UNITE TO UPHOLD LAW

Ten million women, according to newspaper accounts, are represented by the membership of a committee recently formed in New York City. It is called the National Committee for the Enforcement of Law, and has as its purpose the pledging of American women to combat the present day wave of lawlessness and to uphold existing statutes, among them the Volstead act.

The temporary general chairman was Mrs. Henry Peabody of Boston, who outlined the purpose of the committee and spoke particularly of the anti-prohibition agitation and the narcotic problem. "The women of the nation are being misrepresented when it is stated that they are opposed or are indifferent to the enforcement of the law," said Mrs. Peabody.

Mrs. Edward Franklin White, delegate of the General Federation of Women's Clubs, with 4,000,000 members, was elected permanent chairman. Delegates were sent by the Daughters of the American Revolution, the Y. W. C. A., the Federation of Women's Boards of Foreign Missions, the National Congress of Mothers and Parent Teachers, the Kings Daughters and the Catholic Women's Total Abstinence League.

The first steps taken by the committee after organization was the adoption of a resolution urging Governor Smith to veto the Cuvillier measure repealing the Mullan-Gage act. A letter accompanying the resolution listed the many women's associations whose members were behind the committee.

Permanent organization will be completed in June and national headquarters opened.

Dear Household Editor:

I have often wished to write you and tell you how much I appreciate your page. I can not express fully what it means to me. I do like the common sense talks such as "Are we health heathens?" and "Have your Children Read these Books" so much depends on the right kind of books for the children.

A friend of mine paid a big price for a pattern to make her little girl a dress and she was so peeved because the very next issue of the American Agriculturist had the very same pattern and so much cheaper.

"Riders of the Purple Sage" was a fine story. "The Valley of the Giants" can't be beat. I like the stories you have published, only there is not enough published in the paper each week to suit me.

The children and I planted two black-walnuts last fall before they dried, but we would not have known that if the frost did not crack the shell we could with safety do so in the spring until some one asked the question in American Agriculturist and it was answered.

I have found so many articles in the American Agriculturist on dealing fairly with the children. It is what all of us that have families need, for it gives us new ideas. It isn't that we wish to be otherwise than fair to the youngsters, but just plain thoughtlessness. Our little boy five years old had a pet hen. She stole her nest, he found it and saved the eggs. He said he wished to buy things he would need for school. Last year at the age of six, he raised some chickens. Mother helped him and he helped mother with her chickens, change about. To say that he gets pleasure out of it is putting it light. He has something to call his own and he can see for what purpose he is working. We like American Agriculturist best of any farm paper.

Sincerely yours,
MRS. ELEVA B. BUESINK, Clymer, N. Y.

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Reviewing the Latest Eastern Markets and Prices

PREPAY EXPRESS TO AVOID OVERCHARGE

HERSCHEL H. JONES

SHIPPERS of eggs to the New York market never cease to have trouble with express overcharges. Most shipments are sent express collect. The commission merchant or buyer pays the express and deducts it from the return. In the hurry of making deliveries, the express agents seem to find it difficult to make out accurate charges. The wholesale receiver has neither time nor facilities to check up the accuracy of the charges. When the shipper gets his account of sales, which he should always examine carefully, he may find an overcharge of several cents, or much more.

One man, I know, shipped early broilers to New York from a distance and on investigation discovered he was overcharged nearly $10 on one lot of coops.

While overcharging is mere carelessness, the mistake most frequently seems to be made on the safe side for the express company. The surest remedy is to learn the correct tariff, weigh the case yourself and prepay the charges. Be sure the local agent puts the prepaid label on the case. When you notify the receiver that the shipment has been sent, state that it is "express prepaid." Your receipt from the express company will enable you to substantiate any claim for loss from careless handling in transit. The shippers who are doing this, find it completely eliminates difficulties with overcharges.

EGGS MOVING SLOWLY

Receipts of nearby white eggs continue considerably in excess of the demand for current consumption, and the market for them has been quite unsatisfactory. Receivers are compelled to move out job lots of 100 cases, or more, at even prices to prevent accumulations, in which there may be some good and some poor eggs. The quality of the general receipts is very irregular. A small proportion of the best nearby whites sold at 32 to 33c, occasionally as high as 35c, but the bulk of them sold at 28 to 31c. Even fancy New Jersey hennery whites moved slowly with a top price of 40c.

The supply of fancy, large size, hennery brown eggs, with dark brown shell and light yolks, was light, and the market for them advanced. N. J. hennery browns brought 36 @ 37c, and other nearby browns, extras, 33 @ 35c.

Pacific Coast whites were in heavier supply and dull and weak. Surplus had to be stored. Fancy Petaluma packings offered at 37c doz.

Total receipts of eggs at New York since January 1 were on May 23 only 3,598,574 cases, compared with 3,647,740 to same date last year. The amount on hand in storage on that date was 1,137,347 cases, compared with 1,241,311 cases same date in 1922. It should be remembered that last year there was such a surplus in storage that a great deal of money was lost by the storers.

HOLIDAY MARKET FOR BROILERS

After Memorial Day, the next best market time for live broilers is preceding July 4. Shippers should plan to get their broilers to market by June 29 this year for the July 4 trade. If you have no coops for shipping don't wait till the last ten days to write for them. It often takes two weeks to get them.

There is strong demand for really fancy live broilers, especially those weighing over 1½ lbs. Wholesale prices May 24 follow: Broilers, colored, large, 55c; colored, small, 50c; broilers, White Leghorn, fancy, large, 45 @ 50c; broilers, White Leghorn, small to medium, 25 @ 40c.

CHEESE MARKET FIRM

With a good demand for cheese, the market is more in the seller's favor, which trend is partly due to the cold weather. Dealers, therefore, are in a better position and are inclined to hold. Because of the light stocks in reserve, buyers are forced to take hold at prevailing prices.

In some circles it is felt that there is an increased consumption of cheese, due to the general improvement in business conditions.

Prices ranged from 28 to 29¼c on average run and fancys. State whole milk flats, average run, were quoted 28 @ 28¼c.

BUTTER MARKET EASIER

This season of the year brings butter into the market with a decided grass flavor and with inferior quality, together with heavier receipts, the tone is easy. Buyers are not anxious to take hold except for immediate needs.

The receipts from Denmark will probably total during May over 800,000 lbs.

Creamery extras (92 score) sold from 41 to 41½c lb.; June extras, 39½c.

WOOL STILL FIRM

The Boston and New York markets are still firm for better grades of wool, with a little weakening on certain crossbreds. There is less Western trading. Large buyers think growers are asking too high prices and are refusing to buy.

Last week's wholesale quotations follow:

Domestic fleece, unwashed, Ohio and Pennsylvania, per lb. Fine Delaine 57 @ 60c; XX 52 @ 54c; Half blood 55 @ 56c; ⅜ blood 52 @ 53c; ¼ blood 50 @ 51c.

Territory, clean basis, fine, fine medium, staple $1.45 @ 1.50; fine, fine medium, clothing $1.35 @ 1.40; Half blood staple $1.32 @ 1.35; ⅜ blood $1.05 @ 1.10; ¼ blood 96c @ $1.

Secretary of Agriculture Wallace has approved of the official standards for grades of wool to become effective July 1, 1923. The standards provide for seven grades: fine, ½ blood, ⅜ blood, ¼ blood, low ¼ blood common and braid. These standards are established as the result of investigations carried on over several years by the Department of Agriculture.

STEADY PRICES FOR LAMBS

Live sheep and lambs were steady last week. Demand was less active, but supplies were light. Both Southern and State "springers," as the outdoor real spring lambs are called, sold at $17 to $17.75 per cwt. Common stock from other sections sold May 24 at around $16 @ $16.50; prime State clipped, $14.50 @ 15.75; common to good State, clipped, $10 @ 14. Sheep sold as follows : Choice ewes, $6 @ 7.50; choice, clipped, $8; common to good, $3 @ 5; culls, $3 @ 4.

With moderate receipts and active demand, live calves sold fairly readily in spite of restricted business early last week on account of Jewish holidays. Prime stock brought $13 to $13.25 cwt.

Hogs, arriving chiefly on direct shipment to packers, were quoted May 24: Yorkers, $8.35 @ 8.50 cwt., a few at $8.60; medium to lightweight pigs, $8.30 @ 8.50; heavies, $8 @8.40, and roughs, $6 @ 6.40.

DRESSED CALVES INACTIVE

There was a limited supply of country-dressed calves, but with a quiet and less active market prices were barely maintained. For the best veals there was better demand and the tone firmer. Wholesale prices, May 23, per 100 lbs., country-dressed veal calves, prime, $15 @ 17; fair to good, $12 @ 14; small and common, $11 @ 13.

Choice dressed lambs sold well, but poor quality received practically no attention; $10 was top.

NEW POTATOES LOWER

South Carolina potatoes are coming into New York City more freely from 20 to 30 cars a day. Considering the lateness of the season, they will soon occupy most of the attention. Floridas sold on the docks from $6.50 to $7.50 bbl. South Carolina cobblers sold from $6 to $7, a few higher.

Old potatoes are still coming in, but only about 25 per cent of all carlots are from Northern sections. The demand is light and the market dull. States sold from $2 to $2.50 per 150-lb. sack.

BUFFALO FEED PRICES EASY

Due to liberal offerings, spring bran receded 50c and Winter bran $1. The demand is quiet and market easy. Quotations on carlots, Buffalo rate basis in 100-lb. sacks per ton on May 23, were:

Gluten feed, $41.05; cottonseed meal, $45.30; oil meal, $40.50; standard spring bran, $32; hard winter bran, $32; standard spring middlings, $34.50; choice flour middlings, $37; white hominy, $36.55; No. 2 yellow corn, per bushel, 92c; No. 2 white oats per bushel, 50½; No. 3 white oats, per bushel, 49½c.

NEW YORK CASH GRAINS

Cash grain quotations May 23 at New York were:

Wheat, No. 2 red, $1.50½; No 2 hard winter, $1.34½; No. 2 mixed durum, $1.29; corn, No. 2 yellow, $1.00½; No. 2 mixed, $1; No. 2 white, $1.00½; oats, No. 2 white, 56c; No. 3 white, 54½ @ 55c; rye, 89c.

Chicago: No. 2 hard winter, wheat, $1.30; corn, No. 2 white, 82 @ 82¼; No. 2 yellow, 82½ @ 82¾c; oats, No. 2 white, 45¼ @ 45¾c; No. 3 white, 44¼ @ 45¼; barley, 70 @ 72c.

HAY MARKET SLIGHTLY BETTER

Although the New York hay market continued weak, there was a slightly better feeling toward the end of last week, resulting from the gradual cleaning up of accumulations of undergrades of hay. Receipts were a little lower than the week previous but trade was very dull. Surplus of poor quality hay hurts the whole market.

The Hudson River boats have had difficulty in getting loads, due it is said, to larger local demand where railroad construction work is going on. There is no demand for clover mixed hay except fancy light clover mixed. Following prices per ton, based on U. S. Grades for May 24:

Timothy No. 2 $22 @ 24; No. 3 $19 @ 20; No. 4 $17 @18; sample, $11 @ 16; fancy light clover mixed, No. 1 $24; No. 2 $22 @ 23; No. 3 $19 @ 20; mixed grade, No. 1 $22 @ 23; No. 2 $20 @ 21.

MAPLE SYRUP LOWER

Larger offerings of new crop maple syrup in the wholesale commission houses made prices lower last week. Pure maple syrup in gallon tins of irregular quality sold at $1.75 to $1.90 per gallon. Some farmers accepted as low as $1.50 per gallon for small lots of fairly good syrup. Fancy No. 1 New York State syrup cooperatively packed sold at $2.35 per gallon wholesale. Dark maple sugar, bulk lots, at 20 to 25c per lb. depending on quality, and pound cakes of medium or light sugar are quoted at the same price.

HONEY MARKET DULL

There is practically no market in New York at present for comb honey. Extracted in 60 lb. cans has some outlet among jobbers supplying bakers, confectioners and restaurants. Receipts of foreign honey light but demand is too slow to make an active market. Dealers who specialize in honey are well stocked. The following quoted prices are more or less nominal: Comb, clover, case $3.50 @$4; Extracted, clover 9½ @ 10½c lb.; Buckwheat 9 @ 10c lb.; mixed or irregular flavors 7½ @ 8½c lb.

I consider the American Agriculturist one of the best all-round farm papers that I take, and I take four of them.
—C. A. McCulloch, Watson, N. Y.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on May 24:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	37@40	......	......
Other hennery whites, extras	36@37	......	......
Extra firsts	32@33	29@30	29
Firsts	29@31	......	27
Gathered, whites, first to extra firsts	29@33	......	......
Lower grades	27½@28	......	......
Hennery browns, extras	33@35	......	......
Gathered browns and mixed colors, extras	29@31	28@29	......
Pullets No. 1	28@29	......	......
Butter (cents per pound)			
Creamery (salted) high score	41	44@45	......
Extra (92 score)	40½	42@43	42
State dairy (salted), finest	40	40@41	......
Good to prime	39@39½	32@39	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$22@24	$20@21	$21@22
Timothy No. 3	19@20	......	19@20
Timothy Sample	11@16	......	......
Fancy light clover mixed	24	......	21@22
Alfalfa, second cutting	27@29	......	......
Oat straw No. 1	10	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	30	26@28	30@31
Fowls, leghorns and poor	......	24@25	......
Chickens, leghorns	......	......	26@27
Roosters	16	17@18	16@17
Live Stock (cents per pound)			
Calves, good to medium	9@11	......	......
Bulls, common to good	4@4¾	......	......
Lambs, common to good	10@14	......	......
Sheep, common to good ewes	3½@5½	......	......
Hogs, Yorkers	8½@8¾	......	......

VEGETABLE PLANTS

26th YEAR. Cabbage and Snowball Cauliflower plants. Field grown—Cabbage, Danish Ballhead (best of 39 strains tested), Copenhagen Market, Enkhuizen Glory, All Head Early, Succession, Early Summer, Surehead, All Seasons, Early Flat Dutch, Late Flat Dutch, $1.80 per 1,000; 500, $1.30; 300, $1.00. Snowball Cauliflower, $5.00 per 1,000; 500, $3.25; 300, $2.25; 200, $1.75; 100, $1.00. Parcel post or express. List free. No business done on Sunday.

FORD W. ROCHELLE & SONS, Chester, New Jersey

SHIP YOUR EGGS
WHITE AND BROWN
To R. BRENNER & SONS
Bonded Commission Merchants
358 Greenwich St., New York City

WANTED
If you have HAY and STRAW to sell write us for quotations and free Booklet "How to market Hay and Straw."
JOHN E. MURRAY, Inc.
1658 BROADWAY, NEW YORK CITY, N.Y.

SHIP to the right house
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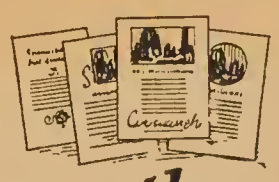
321 Greenwich St.—N. Y. C.
Write for shipping Tags
EGGS

DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.
WAYNE DUCK FARM & HATCHERY, Clyde, N. Y.



Give a thought to Advertising

AS this column is devoted to advertising, we are giving from time to time comment on some of the advertising literature that comes to our desk. We cannot, of course, take all of the good ones, but some of the outstanding features we think are worth mentioning here.

"IF BUGS COULD READ" is the title of a small booklet that attracted our attention considerably the other day. This little booklet, put out by the Bowker Insecticide Company in advertising their new Pyrox Spray Guide, is very neat in appearance and has, we think, a very catchy title—"If Bugs Could Read They Would Keep Away From Farms Where Pyrox Is Used." Poor bugs, they cannot read, but the farmer can who receives literature and that just makes the difference which we humans have over everything else.

Don't we often neglect the advantage of this asset which is ours—namely reading? To be sure no one can read all that is printed, but one class of reading that usually pays a very good dividend is the reading of good advertisements. We hope to see more such booklets of the kind just mentioned and we will be glad to comment on them here.

* * * * * * *

Who would buy shoes from a shoe salesman who sported a pair of dirty, run down foot coverings? Not many of us, we dare say. And yet, not so long ago we met a shoe salesman on a western train and he had on one of the worst looking pairs of shoes we ever saw. We asked him if they were the wonderful make that he was selling, which he had been praising so highly. He answered that they were. Right then and there we decided we would never buy a pair of that make of shoes.

This same principal applies to every industry. If you are selling apples, your orchard should be a model of cleanliness and order. For in that way you make a good impression and appearance plays a big part in advertising.

Again, if you are selling chickens, eggs, cattle, horses, or any certain product, the better condition you keep them and their surroundings in, the better impression they will make and the more sales will come your way.

This is rather a new angle in advertising—and a mighty important one—one that it pays to observe. So we repeat once more, that it pays to advertise, and it pays to advertise well, in the right way.

* * * * * * *

If any of you have seen a particularly good advertisement or booklet from a commercial concern, won't you call it to our attention? We would like to know your reaction on why you think it's good. Possibly you might have some reaction on some advertising in this issue. If so, let us hear from you.

Advertising Manager

Standardizing Products

In New Jersey—Pennsylvania Farm News

THE marketing methods of important New Jersey cooperative associations and those of several big individual growers are changing so as to emphasize branded fruits, vegetables and eggs, carefully graded and packed as quality products, to be put upon the markets. Recent comparative figures in the operation of selling organizations in the State show that graded farm products were usually in strong demand even when the general run of those products were in over-supply. Among the big cooperative farm organizations in the State following this merchandising policy are the Jersey Fruit Growers' Cooperation Association with several local branches in the peach and apple belt; the Atlantic Coast Poultry Producers' Association with 250,000 hens signed up in New Jersey and adjacent States; the Garden State Potato Association, the Ocean County Sweet Potato Growers' Association, the Swedesboro Tomato Growers' Association, and the Sussex County Fruit Growers' Association.

* * *

Farmers' roadside markets promise to be very much in vogue this season according to information recently obtained by the New Jersey State Bureau of Markets. A. L. Clark, Chief of that Bureau, recently urged farmers intending to set up new markets to cooperate with the State Highway authorities by catering to the safety of patrons. The market stalls should be constructed a sufficient distance from the highway so that drivers might park their cars outside of the zone of travel. New Jersey has become justly famous for the products sold at its roadside markets. To maintain this enviable reputation the Department further urges farmers to sell only fresh products from their farms. Where imported southern fruit and vegetables are offered as accommodation they should be plainly marked as to their source and never sold to the purchaser under the impression that they are fresh New Jersey products.

* * *

Following a recent survey of conditions in New Jersey, Dr. T. J. Headlee, State Entomologist, reports indications of a severe outbreak of tent caterpillar. During the third week in May the caterpillar nests in the forks of various trees had reached a size fully as large as the human hand. Although most apparent on wild cherry trees, considerable infestation is noticed on apple, peach, pear, and orchard cherry trees. Dr. Headlee urges farmers to use arsenate of lead, either as a powder or as a suspension in water and thickly coated upon the foliage. The application should be made at once and repeated in case damage is renewed after the first coating has been washed off by rain. The beetle promises to be destructive until mid or late June, he states. Because of the danger of burning, the arsenate of lead must not be used upon peach foliage but should be applied with dry-mixed sulphur-lime or with powdered lime-sulphur.—W. H. B.

COOPERATIVE BRINGS LIVE STOCK BUYERS TO PENNSYLVANIA FARMS

A new kind of cooperative association came into existence this last year in Pennsylvania with the formation of the Steer Feeders' Cooperative Association in Adams County, Pa., which is winding up its first season with excellent results. Farmers of the county purchased 500 feeder cattle at Chicago last fall. These cattle were fed over winter on a ration consisting mostly of silage and cotton seed meal with limited amounts of corn and some hay. The cooperative ownership, enabling a feeding project on such a large scale, attracted buyers to the farm to bid on the cattle. The general practice of selling requires the farmers to ship their animals to the markets for sale. Plans are already under way for similar cooperative purchases this coming year with a larger number of members and an increased number of cattle to be fed. Discussion in other cattle feeding counties indicates that the idea may spread within the year.

* * *

With the lack of facilities and space for the Annual State Farm Products show in Harrisburg of this last January in mind, the State Show Committee is already making efforts to increase the housing facilities for exhibits and meetings by another season. A recent investigation of conditions in Harrisburg shows that additional floor space will be very difficult to secure. Another problem which the committee must settle within the coming weeks is the matter of financing the show. It has been suggested that a nominal admission fee be asked for the commercial exhibits and organized groups of farmers in the State are giving some support to this plan. Announcement has just been made that a farm machinery exhibit, educational in nature, will be one of the principal innovations at next winter's exhibition.

* * *

Recent figures on the cost of hog production in Pennsylvania indicate that the "hogging off" of corn is proving to be a paying practice in the swine-raising areas of the State. Agricultural leaders have been talking this practice for several years, and apparently it has met with considerable favor in a number of the counties. The Pennsylvania plan is to sow a field of early corn so that the hogs can feed upon it while waiting for the main crop to ripen. Marketing statistics in the State show that the swine growers profit greatly by forcing their hogs upon the market early.—W. H. BULLOCK.

EASTERN PENNSYLVANIA NOTES

OLIVER D. SCHOCK

Reports from apple growers situated in Southern Pennsylvania indicate a large crop of apples for 1923. The York Imperial at present promises to surpass any other variety. This variety is extremely popular through this section of the country. The Stamen Winesap ranks second, a normal yield being predicted. Cold weather and late frosts injured the early blossoming varieties of fruit trees.

Farm boys and girls are rapidly organizing into potato and corn clubs. In some of the sections very attractive prizes are being offered to the boy or girl who produces the best produce. In one county a purse of $100 was raised to be awarded in premiums.

A Review of New York's 146th Legislature

(*Continued from page* 469)

May 3, reconsidered and passed on May 4. The Governor has not yet signed the bill, but has called a hearing which will have been held when this paper reaches American Agriculturist readers.

Another bill of educational interest was that introduced by Robinson in the Assembly, and by Lowman in the Senate, adding a new section to the educational law designating the School of Home Economics at Cornell University as the New York State College of Home Economics at Cornell University and providing for its administration. The bill passed the Assembly, but was not reported out of the education committee of the Senate.

May I thank you for the compliment (altogether unexpected) conveyed by the nice place you saw fit to give to my article anent the "Country Church" discussion in your publication. Candidly, I believe that the responses you get will prove that just such fearless openings as you present will give outlet to clean and independent thought that has too long been trying to hunt excuses for silence, when the real reason was cowardice. It is quite apparent that the trouble is caused not so much from an occasional taste of gnats, but from a steady diet of camels.—John L. Wilson, Titusville, Pa.

Opportunity Calls from CANADA

Visit Canada this summer—see for yourself the opportunities which Canada offers to both labor and capital—rich, fertile, virgin prairie land, near railways and towns, at $15 to $20 an acre—long terms if desired. Wheat crops last year the biggest in history; dairying and hogs pay well; mixed farming rapidly increasing.

Homeseekers' Rates on Canadian Railroads

If you wish to look over the country with a view to taking up land get an order from the nearest Canadian Government Agent for special rates on Canadian railroads. Make this your summer outing—Canada welcomes tourists—no passports required—have a great trip and see with your own eyes the opportunities that await you.

For full information, with free booklets and maps, write

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SYRACUSE, N. Y.
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MINERAL COMPOUND in use over 50yrs FOR SYMPTOMS OF HEAVES

Booklet Free
NEGLECT Will Ruin Your Horse
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SEND TODAY
AGENTS WANTED
$3 Package guaranteed to give satisfaction or money refunded. $1 Package sufficient for ordinary cases
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MINERAL REMEDY CO. 451 Fourth Ave., Pittsburgh, Pa

Big Sale Now
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OTTAWA
$91.50 F.O.B. Ottawa Kans.
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Prices Smashed on this better, faster cutting machine. Saws logs, limbs, falls trees. 10-year Guarantee. Cash or Easy Terms.
Free Book and Special Offer. Write quick before sale ends!
OTTAWA MFG. COMPANY
801Q Wood Street, OTTAWA, KANS
Room 801-Q Magee Bldg., PITTSBURGH, PA.

Natural Leaf Tobacco Mild or Strong. Extra fine smoking 5 lbs. $1.25; 10, $2.00; 20, $3.60. PIPE FREE; Hand-Picked Chewing, 5 lbs. $1.50; 10, $2.50.
TOBACCO GROWERS' UNION, Murray, Ky.

YOU CAN'T CUT OUT A BOG SPAVIN, PUFF OR THOROUGH-PIN, BUT
ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.
will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. $2.50 per bottle, delivered. Will tell you more if you write. Book 4 R free.
W. F. Young, Inc., 579 Lyman St., Springfield, Mass.

LEAF TOBACCO, Five pounds chewing $1.75; ten, $3.00; twenty, $5.25; five pounds smoking $1.25; ten, $2.00; twenty, $3.50. Pipe and Recipe Free. Send no money, pay when received.
UNITED TOBACCO GROWERS, MAYFIELD, KY.

Peerless Fence NOW 17¢ A Rod And Up
Sold Direct from Factory
Just Out! New 104 page catalog. Send for it today—see the big saving our low, direct from factory prices give you on Fence, Farm Gates, Steel Posts, Roofing and Paint.
PEERLESS WIRE & FENCE CO.
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O. I. C. and CHESTER WHITE PIGS Six weeks old. $5.50 each.
OAKS DAIRY FARM, WYALUSING, PA.

BABY CHICKS

Price List Prepaid to you	Pure bred Stock 100	50	25
White and Brown Leghorns	$10.00	$5.50	$3.00
Buff and Black Leghorns	10.00	5.50	3.00
Anconas	11.00	6.00	3.25
Rhode Island Reds	11.50	6.25	3.50
Barred Rocks	11.50	6.25	3.50
Single Comb Black Minorcas	13.00	7.00	3.75
Buff and White Rocks	13.00	7.00	3.75
White and Silver Laced Wyandottes	14.00	7.50	4.00
Buff Orpingtons	14.00	7.50	4.00
Black Langshans	15.00	8.00	4.25
Light Brahmas	19.00	10.00	5.25

All absolutely first class, pure bred stock. Prompt shipments made. Mail orders to
J. KREJCI, 2165 East 86th Street, Cleveland, Ohio

MOSS'S CHICKS

BEST IN THE WORLD

This season has proven to be the biggest season in our history. An outstanding factor is the great number of reorders from customers of past years, which speaks most convincingly of our High Quality and Superior Service.

You will receive the Healthiest, most robust chicks produced, for that is the kind we are famous for throughout the country. If you want fall layers order now, we are still in a position to ship immediately.

PURE BRED BABY CHICKS

Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
Leghorns - Buff and Brown - Barred Rocks	$4.50	$8.50	$17.00
S. C. & R. C. R. I. Reds	$4.75	$9.00	$18.00
White Wyandottes - White Rocks - Buff Rocks - Anconas	$5.00	$10.00	$19.00
Black Minorcas - Buff Orpingtons - White Orpingtons	$5.50	$10.50	$21.00
Mixed Chicks or Broilers	$3.75	$6.75	$13.00
Light Brahmas	$8.75	$16.50	$30.00
Famous MOSS'S Jersey Black Giants	$11.00	$21.00	$40.00

June, July and August chicks 1 cent lower. By 500 or 1,000 of one variety, special discount allowed.

Hatching Eggs and Stock.—Whether your order is large or small, it will have the same careful attention. *Catalogue on request.* **Immediate Delivery**

ANTHONY H. MOSS, Morris Plains, New Jersey

Flemington Famous Chicks!

We are going to offer as A SPECIAL! 25,000 Day-Olds, from our selected matings, for June Delivery

	Per 100	Per 50	Per 25
S. C. W. Leghorns..	$10.50	$5.50	$3.00
Barred Rocks.....	15.00	8.00	4.50
R. I. Reds.....	16.00	8.50	5.00

We guarantee 100% live arrival, full count. Parcel post paid. Order at once; don't delay and be disappointed at such low prices for SELECTED STOCK. Send P. O. Money Order or Check in full remittance.

FLEMINGTON POULTRY FARMS & HATCHERY

Box 422, FLEMINGTON, N. J.

BABY CHICKS

Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

QUALITY HATCHERY, Box B, Zeeland, Mich.

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

TRY US AND BE SATISFIED

RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

Order June Chicks Now *at these Rock Bottom Prices*

	25 Chicks	50 Chicks	100 Chicks
S. C. W. Leghorns...	$3.25	$5.00	$10.00
Barred Rocks.....	4.00	7.00	14.00
R. I. Reds.....	4.00	7.00	14.00

500 chicks one-half cent per chick less. Every chick guaranteed from healthy, vigorous free range stock. Post paid. Safe delivery guaranteed.

BROOKSIDE POULTRY FARM

E. C. BROWN, Prop. SERGEANTSVILLE, N. J.

TIFFANY'S SUPERIOR CHICKS THAT LIVE

Silver Laced Wyandottes White and Barred Rocks and S. C. R. I. Reds

Pekin, Rouen and Indian Runner DUCKLINGS

ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

Hampton's Black Leghorn Chicks

Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.

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QUALITY BABY CHICKS

Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

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Wh. Wyand., Blk. Minorcas & Anconas	4.75	9.25	18.00	- - -	- - -
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Wh. Leghorns, Mating B	4.00	8.00	15.00	72.50	140.00
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H-usky, by coming from free range vigorous stock.
I-mproved by careful selection and good breeding.
C-hicks, which come from high productive stock.
K-eep records up to the standard of their parents.
S-trong, coming from stock of high constitutional vigor.

It pays to keep utility stock which give the best production of the highest-class eggs. Breeding pens contain our blue ribboners from the New York State Production Show. Let me quote you prices on the Genesee Valley Strain of S. C. White Leghorns. Write for circular, stating your requirements and shipping dates preferred.

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Don't fail to take advantage of these prices, for they will include our number one grade chicks. Our stock is bred for quality and heavy egg production. They will be money-makers. Will ship any number of chicks from 25 on up.

S. C. White and Brown Leghorns and odds and ends at 10 cents. S. C. Anconas at 11 cents. R. C. and S. C. Reds and Barred Rocks, 13 cents. S. C. Buff Orpingtons and White Wyandottes at 15 cents. S. C. Black Minorcas at 14 cents. S. C. Buff Minorcas at 20 cents.

40,000 Chicks Every Week. Order Direct from This Ad. Attractive Catalog Free.

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ATHENEON CHICKS REDUCED PRICES

12,000 per week hatched from healthy, vigorous, pure-bred, culled farm flocks—the kind that are easy to raise—live, lay, and pay. Our customers re-order. There is a reason.

VARIETIES	Prices on— 50	100	300	500
S. C. WHITE, S. AND R. C. BROWN LEGHORNS	$5.50	$10	$30	$48
BARRED ROCKS, ANCONAS, BLACK LEGHORNS	6.50	12	35	58
WHITE ROCKS, R. C. AND S. C. REDS	7.00	13	38	63
WHITE AND SILVER WYANDOTTES, BLACK MINORCAS	8.00	15	44	73

ODDS AND ENDS—Heavy Breeds, 10 cents; Light Breeds, 9 cents each.

July prices the same. Mail your order now direct from this ad. Send check, money order, or registered letter. No shipments C. O. D. Full count and live delivery guaranteed. Parcel post prepaid. Reference: Athens National Bank.

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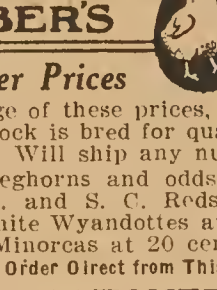
WHITE AND BROWN LEGHORNS	$5.00	$10.00	$47.50	$90.00
BARRED ROCKS, REDS, ANCONAS	6.00	12.00	57.50	110.00
WHITE ROCKS, BLACK MINORCAS	6.50	13.00	62.50	120.00

MIXED CHICKS, ALL VARIETIES, PURE-BRED—same price as Leghorns POSTPAID.

Full live delivery guaranteed. Orders filled in rotation. Season ends July 1st. Order right from this ad. Save time. Reference: HURON CO. BANK. You take no chances. NORWALK CHICK HATCHERY, Box B6, NORWALK, OHIO. Only 16 hours from New York City. Chicks will reach you quickly and safely.

100,000 JUNE CHICKS



Hatched under my personal supervision from personally inspected flocks of heavy-laying, pure-bred fowls.

VARIETIES	Prices on 100	500
WHITE BROWN. & BUFF LEGHORNS	$10	$47.50
BARRED ROCKS, REDS, ANCONAS	12	57.50
WHITE & BUFF ROCKS, WH. WYANDOTTES, MINORCAS	13	62.50
WHITE & BUFF ORPINGTONS, SILVER WYANDOTTES	14	67.50
MIXED CHICKS FOR BROILERS	$9 PER 100 STRAIGHT	

POSTPAID and full live delivery guaranteed. Get your order in quickly right from this advertisement with full remittance. Bank Reference. Free Catalog.

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CHICKS $8.50 per 100 and Up

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

VARIETIES	Prices on— 50	100	500
WHITE, BROWN, AND BUFF LEGHORNS	$5.00	$9.50	$45.00
BARRED ROCKS, S. C. REDS, ANCONAS, MINORCAS	6.50	12.00	57.50
WHITE ROCKS, WHITE WYANDOTTES	7.00	13.00	62.50
BROILERS, MIXED CHICKS	5.00	9.00	42.50

BUFF MINORCAS — 25, $5.50; 50, $10; 100, $20.

Hatched in the best modern incubators from good, vigorous, pure-bred, heavy-laying flocks on free range. Carefully selected and packed to go safely. Order right from this ad with full remittance. Save time. No catalog. Reference: Citizens' Savings Bank. You take no chance. Instructions for raising late Chicks with each order. THE EAGLE NEST HATCHERY, Box F, UPPER SANDUSKY, OHIO. Only 18 hours from New York City.

30,000 Chicks weekly

For June, July and August Delivery

June, July and Aug.

Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:

S. C. White and Brown Leghorns	10c each
Barred Rocks	12c each
S. C. R. I. Reds and S. C. Black Minorcas	14c each
R. C. White Wyandottes	14c each
Broiler Chicks (Heavy Breeds)	9c each
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Lots of 500.....½ cent per chick less
Lots of 1000..... 1 cent per chick less

100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.

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Members I. B. C. Association

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THREE MILLION FOR 1923

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We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

Smith's Standard Reg. U.S. Pat. Off.

THE SMITH STANDARD COMPANY

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Philadelphia, Pa., Dept. 67.....833 Locust Street
Cleveland, Ohio.....1967 West 74th Street
Chicago, Ill., Dept. 67.....427 So. Ocarborn Street
(Member International Baby Chick Association)

CHICKS for June and July Delivery

Our 19th Season producing good strong chicks from heavy-laying strains. S. C. White and Brown Leghorns, $9.50 per 100; Buff and Black Leghorns, $10 per 100; Barred and White Rocks, $12 per 100; Anconas, Black Minorcas, $11.50 per 100; White Wyandottes, R. C. Reds, $13 per 100. Mixed, $8.50 per 100. Order direct from this ad. We guarantee 95% live delivery. Catalogue free.

20th CENTURY HATCHERY

Box R New Washington, Ohio

CHICKS WITH PEP

Big Reduction for June and July

Our lively, vigorous chix from our Bred-to-Lay and Exhibition hens, will pay you in June and July. Leghorns and Mixed, 10c; Rocks, Reds, Anconas, Minorcas, White Wyandottes, 13c; Orpingtons and Silver Wyandottes, 15c. Safe delivery. Postpaid.

Illustrated Catalog Free

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We ship anywhere and pay parcel post charges and guarantee 95% safe arrival. Barred White and Buff Rocks, R. I. Reds; White, Brown and Buff Leghorns; White Wyandottes; Black Minorcas; Anconas; White and Buff Orpingtons; Mixed (odds and ends). Write to-day for prices. Prompt deliveries.

E. P. GRAY, Box 90, Savona, N. Y.

BABY CHICKS

Hatched by the best system of Incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 14c. each; White Wyandottes, 16c. each; White, Brown, Buff Leghorns, 12c. each; broilers, 8c. each. Pekin Ducklings, 30c. each. Safe delivery guaranteed by prepaid parcel post

NUNDA POULTRY FARM NUNDA, N. Y.

BABY CHICKS

We know how to produce strong, husky, liveable Chicks. High quality, moderate in price. Bar. Rocks, $14; Reds, $16; Barron White Leghorns, $12; Brown Leghorns, $13; Anconas, $21, Assorted, $10. Prepaid, full count.

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TOM BARRON PEDIGREE STRAIN

S. C. W. Leghorns exclusively. Extra fine large June Chicks $15. Free delivery and satisfaction guaranteed.

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CHIX

Bar. Rocks, 11c; Reds, 12c; Wh. Leghorns, 9c; Mixed, 8c. 100% arrival guaranteed. Order from adv or circular free.

TWIN HATCHERY, McALISTERVILLE, PA.

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fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Collies, Pigeons, Chicks, Stock, Eggs, low; catalog. PIONEER FARMS, Telford, Pennsylvania.

JUNE "BRED TO LAY" BABY CHICKS

PRICES S. C. W., Br. Leg. and S. C. Mottled Anconas. June 4 to June 25 delivery. 50 Chicks, $5.00; 100 Chicks, $10.00; 500, $45.00; 1,000, $90.00; Mixed, 100, $7.00.

The best utility Chicks that money can buy, hatched from large deep bodied birds with large lopped combs. Wonderful winter layers and winners at leading Shows. Our modern 65-acre Poultry Farm and our method of business enables us to save you money on real high quality chicks. We ship Postpaid and guarantee 100% live delivery and absolute satisfaction. Order at once. Can make immediate delivery. Also hundreds of 8-wk. pullets ready for shipment. Cat. free. Reference.

TOWNLINE POULTRY FARM BOX 28 ZEELAND R-1, MICH.

150,000 JUNE CHICKS { $9 Per 100 and Up

Good, stroug, vigorons Chicks from pure-bred, selected, heavy-laying hens on free rauge and well cared for, insuring vitality of the Chicks.

Varieties	Prices on 50	100	500	1000
White, Brown and Buff Leghorns	$5.00	$9.50	$45.00	$90.00
Barred Rocks, Reds, Anconas	6.50	12.00	58.00	115.00
White Rocks, White Wyandottes, Buff Orpingtons	7.00	13.00	63.00	125.00
Silver Wyandottes	7.50	14.00	70.00	- -

Postpaid to your door. 100% live arrival guaranteed. Place your orders quickly, direct from this advertisement, with full remittance. Best Bank Reference. You are not taking any chances. Circular Free.

MODERN HATCHERY, Box D, MT. BLANCHARD, OHIO

Only 18 hours from New York City. Chicks will reach you quickly.

AMERICAN AGRICULTURIST

Founded 1842

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Insert—Glista Ernestine

Holsteins—Why They Lead—By M. C. Bond

The Cave Man Knew Nothing of Etiquette

"For Manners Are Not Idle—But the Fruit of Noble Minds"

By GABRIELLE ELLIOT

THE primitive cave-man, gnawing a bone in haste lest some stronger savage grab it away from him, was down to fundamentals. Food was a necessity and so, in those days, was brute strength to protect his meal. It was not until men trusted each other enough to eat together that table manners came about.

In other words, good manners, at base, spring from consideration for others. There are endless definitions of etiquette, but a poet has touched the heart of the matter in a single line—"For manners are not idle, but the fruit of noble minds." What better explanation of their meaning could you have, or what better reason for their continuance?

Take, for instance, just one bit of table etiquette. The hostess is always served first. Off hand, you might think it more polite to serve the guest first of all. But in the old days, after the cave-man epoch, but before civilization reached its present state, poison all too often found its way into the most tempting dish. If mine host tasted it first, one could be sure of his honesty and reasonably safe as to his servants.

Now if that medieval touch of caution were the only reason for the order of service, the custom might long ago have died out with other bygone manners which applied to an entirely different mode of life. But it lives, I think, for a very good reason—again based on consideration. Not every guest is experienced in table etiquette; there are always little variations, too, in different localities. But if the hostess is served first, it seems to break the ice; it sets at rest questions as to which spoon or fork to use and it makes the guest more at ease and therefore more apt to enjoy the dinner to which he or she has been invited. A new reason, more appropriate than the old, has kept alive the custom. You will notice, however, that when a hostess serves tea, for instance, or any informal, side-porch refreshments, she always passes both the liquids and the sandwiches or cakes first to her guests, before helping herself. This is more natural and also seems more courteous than for the hostess to pour out first her own cup of tea or glass of lemonade, and therefore has found general acceptance.

Manners First from the Heart

So, you see, manners should come first from the heart. They all did originally, and the ones which still have a meaning are the ones which count. They may be—in fact they are—an extra, something for which the cave man or the primitive savage has absolutely no use. But, to use the adjective of the line I have quoted, they are distinctly not "idle." They are a product of civilization, the "fruit of noble minds," and even the most stilted custom had its origin in thoughtfulness for the comfort of others.

That is why I feel sorry for people whom I hear speaking scornfully of good manners, as it is now somewhat the fashion to speak. I cannot help feeling that they do it in self-defense. They must be conscious of a lack within themselves, and it is always easier for weak human nature to assure us that what we don't possess ourselves, is not really worth having, than it is to face the music, recognize our failing, and set things right. The genuinely considerate man or woman wants to do things in the way which will make life most comfortable for others. Manners may be a superfluity, but they mark the difference between the savage man, who thinks only of himself, and the civilized man, who has learned to think of others.

For this reason, for instance, all quarrels must be buried at a friend's table. In the olden days, real bloodshed was avoided by the understanding that the respect of two enemies for their mutual host forced them to lay by their private quarrel until from under his roof. Now-a-days, unfortunately, there are still disagreements, but if people who do not ordinarily seek each other's company happen to meet at a friend's, they must ignore their differences and meet with at least an outward appearance of harmony. This is not hypocrisy; it is simply ordinary consideration for the hostess who has invited both guests and whose gathering would be quite spoiled if there were any evidence of ill-feeling.

Not Unlike To-day

Once it was not safe for a woman to venture in the streets alone. When she stirred abroad, a man, usually with a good sharp sword, escorted her, and while she walked close to the houses, he took the outside, to protect her from jostling or annoyance. To-day, a well-bred man instinctively takes the outside when walking with a woman. Although our street conditions are a far cry from those quarrelsome days, there is just enough need for such protection, slight as it is, to make it a matter of courtesy and therefore of necessity. Carelessness in observing such a bit of routine politeness on the part of a man who knows it should be observed, shows that he might easily lack consideration in things far more important.

Men used to raise the visors of their helmets to show their faces to friends. To-day, a man raises his hat to a woman of his acquaintance. It is not a useless ceremony, but a mark of respect. The man who neglects it, or just lazily raises his hand to the brim of his hat, shows something besides mere carelessness in observing a traditional gesture.

Consideration of Another's Feelings

In the same way, women who ignore or resent trivial customs of the sort may be overlooking the only reason for good manners—the consideration of another's feelings. I have known women who, naturally enough, resented it if men did not rise when they entered the room or joined a group. Yet I have seen a woman who considered herself perfectly at home in society keep joining and leaving a group, forcing the men and the younger girls to rise each time, interrupting the conversation, not staying long enough to sit down and join in it herself, yet keeping the men awkwardly on their feet. This was a case in which they might easily have grown careless—in fact, they very soon did—because they were made to feel foolish in observing an ordinary courtesy. The discourteous person was the woman who for all her clever talk and social poise, lacked real consideration.

"For manners are not idle, but the fruit of noble minds." Every act of etiquette at one time or another had a reason for existence. If the need has entirely passed, this fruit of noble minds will in the course of time wither away like others and be discarded. If it still expresses, even in a slight degree, the respect and courtesy which human beings owe to the comfort and peace of mind of each other it will continue.

If good manners matter to anyone, they matter to everyone. It is not what our manners make of us, but what we make of our manners that counts. They are not applied from the exterior, they come from within, the true fruit, which everybody will recognize, of noble minds.

If any individual problems of etiquette are troubling you and I might be able to suggest a solution, please give me the privilege of helping you. You may write me in care of the American Agriculturist, 461 Fourth Avenue, New York City. While I cannot promise to speak accurately for Mrs. Grundy, because I believe in the spirit of the law rather than the letter, I shall be glad to do my best for you.

* * *

Owing to the fact that I missed part of Mrs. Brigden's talk on the "Abiding Place of Little Children," I wish to take advantage of your generous offer to send me a copy of the same as was announced at the close of her address. Your radio program is certainly fine and I wish to thank you for the entertainment of many evenings which I have enjoyed as one of your invisible audience.—C. K. * * *

Mrs. Brigden: Thank you for your fine address given from WEAF, which I enjoyed hearing so much. I believe I heard you speak when you were in Trenton, at the New Jersey Home Bureau Conference, but your voice was clearer over the radio than in the ballroom. I have been very much interested in your Committee of Twenty-one on rural schools in New York. I would appreciate an extra copy of the talk which you broadcast.—MRS. J. L. H. * * *

Please send me copy of the talk by Dr. Royal S. Copeland on "Rural Health." We would like to know if Dr. Copeland had any particular kind of bread in mind, white or brown bread. We enjoyed the talk very much. Three of the family had bread and milk before they went to bed.—MRS. H. VAND. * * *

Will you kindly send me copy of the talk given by Mr. Enos Lee. His talk was particularly interesting to us as Mr. Lee happens to be our cousin.—G. J. L.

* * *

"Will you please send me a copy of Senator Royal Copeland's address on bread, and milk that I may read it to the children."

No "Cave Man" Stuff

ACCORDING to Miss Elliot, the household editor of American Agriculturist, it is no longer neeessary for man to hang on to a bone and growl while he gnaws at it to keep the other savages away. "Good manners," says Miss Elliot, "are just a natural result of courtesy and eonsideration which are a part of our modern eivilization."

If you did not have the good fortune to hear this interesting talk over the radio on Wednesday evening, June 6, at 6:50 P. M., standard time, we are sure you will enjoy reading it on this page.

By the way we eall your speeial attention to the ehange in time of broadeasting American Agrieulturist farm radio program. This was formerly given at 7:30 daylight saving time, whieh is 6:30 standard time. This of course was too early for farmers at this time of the year. By speeial arrangements, with WEAF station, we have advaneed this time from 6:30 to 6:50, or ten minutes to seven, standard time, every Wednesday evening. This ought to enable most farm families to "tune in" at just about the time they have finished supper.—The Editors.

American Agriculturist

THE FARM PAPER THAT PRINTS THE FARM NEWS

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 For the Week Ending June 9, 1923 Number 23

Holsteins—Why They Lead

For the Average Farmer They Are Well Adapted to Fluid Milk Production

By M. C. BOND

I WAS born and brought up on a small farm in Vermont where my father kept Jerseys for a number of years and made butter for retail trade. I shall never forget the decided breed prejudice which a neighbor of ours had and I remember distinctly hearing him say a great many times that if he knew where the last Jersey in the world was, that he would walk ten miles barefooted to kill her in order to know that the breed was extinct. It just happened that this man was a Holstein breeder of the poorest sort, keeping many of his cows for nurse cows to raise veal and doing very little milking.

After I came to Madison County, New York, I found myself surrounded by many Holstein herds and learned to acquire a decidedly wholesome respect for the breed. Breed prejudice is a great detriment to anyone and especially to the breeder himself. Any man who is prejudiced is almost sure to overlook his own weaknesses and faults, and consequently will be handicapped in progress. However, the question occurred to me—why was it that so many Holsteins were kept in Madison County, the other breeds being hardly represented. I have come to the conclusion in spite of the fact that the Guernsey cow has a particular adaptability to retail milk trade that the Holstein cow is the best adapted to milk production for the average farmer. Most of the milk is shipped to cities, is standardized so that it is of nearly uniform percentage of fat and individual breed milk loses its identity. Therefore, I concluded that the reason the farmers in Madison County kept Holsteins was because the greatest source of income to these men was from the sale of fluid milk, most of which went on to a New York market.

Judging County Holstein Exhibits at the New York State Fair. Come to the Dairy Show next October and you will see the greatest exhibit of dairy cattle ever assembled in the East

Some Phenomenal Records

The Holstein cow gives milk in great quantities. One of our leading cows averaged for a week 143 lbs, or 62 quarts a day. Another averaged for the year over 100 lbs. or 47 quarts a day. These of course are phenomenal records, but the average cow in the average farmer's herd of the Holstein breed will give more than similar animals of the other breeds, and pounds of milk is still the deciding factor with these men.

The Holstein cow originated in Holland and adjacent territory in Germany. She is black and white in color and the largest of the four dairy breeds. She has been accustomed in the old country to graze on the level lowlands of the Dutch people and be cared for by the little Dutch maid with her wooden shoes. Importation to America began at an early date and New York State received a goodly proportion of these animals. Of late years importation has not been of consequence since American bred animals have answered our breeding necessities. The capacity of the Holstein cow to consume food and produce milk is the big factor which the progressive farmer is interested in.

The breed is well organized. The National Association, which is located at Brattleboro, Vt., attends to the registration and transfer of the animals and membership of the organization, the membership fee being $25 and female registration $1 and transfer of ownership $1.50. There are nearly 20,000 members in the Holstein-Friesian Association in the United States, New York having 4,394 in June, 1922. In addition to this National Association there are a great many county and local breed clubs and several State Holstein associations. All of these organizations attempt to coordinate and work for the promotion of the breed. The Extension Service has been developed with the aim of its educational aid to the breeders, and we have learned that a great many men have changed from grades to pure breds through the efforts of this and other institutions.

Pure Breds Earn 47.8 per cent More than Grades

I have just received the report from the United States Department of Agriculture, showing from some of their investigations, that pure-bred dairy cattle have an earning power 47.8 per cent greater than scrub stock. These figures are for production at the pail only and no account is made for the surplus stock which of course will sell at a considerable profit over the surplus grade stock. The grade approximates the pure bred in efficiency of production and it is only a matter of time when the farmer who is developing a herd from scrub stock will work up through the grade to the pure bred, the big advantage being that the offspring from pure breds can be relied upon much more safely to be consistent and good producers than can the calves from grade cattle. Just a short time ago a farmer was telling me of a remarkably good grade that he had and he said the four heifers from her were of practically no value. This is one of the discouraging factors of breeding grade cattle.

Every organization needs to clean house occasionally. At this time of the year our American women are thinking of cleaning house the length and breadth of this country. Breed limitations may be somewhat eliminated through the process of cleaning house by selection, followed by careful breeding. The high prices paid for Holsteins during the war and just previous were quite largely the cause of so many poor pure breds being raised and sold and consequently we have now quite a number of these scrub pure breds, animals of poor conformation and low production, bulls which constantly produce offspring with sloping rump, and weak constitution. These animals should quickly and unqualifidely be disposed of to allow animals which are the true type to do their work. It is only by seeing mistakes and recognizing poor animals, then selecting and disposing of these—not to any other breeder but to the butcher—that any breeder can progress and it is to the interest of the breed as a whole that they advocate the elimination of these undesirable animals, even though they be pure breds.

The Future is Bright

The future is bright. The system of Advanced Registry records shows that the Holstein cow holds practically all the world's records for milk and butter production. There are over sixty cows which have produced 1,000 lbs. butter in a year in the Holstein breed and very few in other breeds. The Holstein is prolific. There are several century sires, or sires having over 100 producing daughters. The cows are good breeders over a long period of years and both cows and bulls are prepotent, carrying on to their progeny their good qualities of production and individuality.

This insurance of good production is supplemented by the food value of Holstein

(*Continued on page* 491)

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

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A Word for the Holstein

IN this issue we are calling attention to that wonderful breed of dairy cattle, the Holstein. In the May 5 issue, we told you about the Guernsey, and in early numbers we shall have something to say about the Ayrshire and Jersey.

The other day we paid a visit to what is probably the most wonderful dairy cow in the world, Glista Ernestine, the Holstein record breaker owned by the New York State College of Agriculture. Her picture is inserted on the front cover of this issue. Her udder is so large that a dishpan, set on the floor, has to be used when she is milked.

Glista is nearly fifteen years old. She has produced regularly since calving the first time. This in itself is a wonderful record when we realize that the average number of lactations per cow is not over five. In seven different lactations, Glista Ernestine has produced over 30 pounds of butter in a week. In addition to this, she has two records of producing over 100 pounds a day for 100 consecutive days.

Of course, individuals like this are rare, but they serve as inspirations and ideals toward which all dairymen can strive; and it is rapidly becoming more and more necessary for farmers who wish to make a living from cows to get high standards in line and constantly work to attain them.

Service Institutions

A RECENT report issued by Dean A. R. Mann, of the New York State College of Agriculture, shows that in the year 1922 the college made chiefly through its extension forces 1,374,349 face-to-face contacts with farm people. Not all of these were different persons, as in some cases the same person asked for and received help more than once.

Through its extension service proper, not counting the county agent service, the college came in contact with over 200,000 people. This particular service includes extension schools, farmer's institutes, lectures by college specialists, demonstration meetings, conferences, farm visits, farmers' field days, Farmer's Week, and poultry and fruit judging schools. In the home economics work, including conferences, demonstration meetings, lectures, institutes and extension schools, there were 48,000 personal contacts. The county agricultural agents made over 500,000 contacts, the home demonstration agents over 381,000, and the junior extension system 203,000.

When we realize that this is the record in one year in only one State, that similar work is going forward in nearly all of the States, and especially that farm people themselves take the initiative in asking for this service, we can get some realization of what our Colleges of Agriculture are doing for the farm business. The above mentioned service does not include the resident teaching work which gives thousands of our young men and women not only the scientific training needed in the management of the modern farm and the farm home but, moreover, instills in them the thought that working a farm and managing a farm home are two of the greatest jobs in the world.

"There Is No Precedent"

WE sometimes get a little impatient with the legal profession and with other of our over conservative friends when they constantly hold up action on some needed measure or reform because it has never been done before. "There is no precedent" is one of the greatest curses of advancing civilization. Even the inventor of the first horseless wagon was a slave to precedent, for he put a dash-board and whip-socket on the first automobile. If Gutenberg had stopped because he could find no precedent the printing press might not have been invented. If Columbus had searched for a precedent before crossing the "Sea of Darkness," he never would have started.

If all those millions of brave souls of past and present who have opened up a new world for us in literature, invention, science and religious thought had stopped to look for precedents for their action, they would have taken none. If all had agreed that "it can't be done," and acted on that principle, then the human race would still be monkeys, for there could have been no evolution.

Custer's Last Man

THE death on May 22, on a reservation in Montana, of Curley, a Crow Indian, will recall to the minds of older people the excitement caused by the massacre of Custer and his soldiers on the Little Big Horn in 1876. Curley was one of Custer's Indian scouts, and was the sole survivor of the massacre. He escaped by mingling with the Sioux after the battle. Custer's entire command was wiped out in the fight with the Sioux who greatly outnumbered the white soldiers.

Curley, the scout, was sent back to bring up reinforcements, but on his way back his horse was shot from under him and he returned on foot to Custer where he took his part in the fight. He said that General Custer was the last man to fall after the Sioux tried to take him alive.

Nothing in the known history of mankind is more wonderful or romantic than the conquering and the settlement of the great West. Within the memory of living men thousands and thousands of square miles of the most fertile farm land in the world were overrun with wild game of almost every kind and description. Buffalo by the millions roamed the great plains. All of this great country was practically unknown, except to the Indians.

After the soldiers began to get the Indians in check, there came the great cattle ranges and the cowboys, and later the border ruffians and gunmen.

To-day, only a comparatively few years later, the buffalo are gone, the Indians are peaceful farmers on the reservations, the cowboys are plow-boys, and there are more gunmen in New York City than in the whole wild West.

The Square Pegs

RECENTLY we had the pleasure of visiting two farms, one specializing in dairying and the other given up almost entirely to fruit. Each of these farms had been made to pay right through the hard times. As we were being shown about each farm by the owners, and saw the results from the knowledge and interest that they were putting into their jobs, we were thinking that the chief reason why these men were successful, was their love and enthusiasm for their work.

The dairyman had a better knowledge of cows than probably any man in our acquaintance, and the same might be said of the other farmer and his fruit trees. The dairyman knew and had at his tongue's end all of the pedigree and record of every individual in his large herd. He could tell almost by instinct just the minute any cow began to get a little off. He came by this knowledge because he loved cows and knew cows, and would rather work around cows than do anything else. He probably would not have made a great success with fruit. The other had watched the trees in his great orchards grow until he knew what each one's peculiarities were, when it was doing well, and what its limitations were. He knew all of this by spending hours of his life in the orchard at times when other men not so enthusiastic or with less love for their job, would have been resting.

With both of these men their vocation was also their avocation and their greatest pleasure. In thinking about them and their success, we thought that it was unfortunate that most farmers are farmers by chance rather than by choice. Many of us stay on the farm because we were born into the job, when as a matter of fact, we might have made a good deal better school-teacher, lawyer or mechanic.

As our agriculture grows older, it grows much more complicated, requiring more and more skill to make a go of it, and requiring especially a liking for the job. Therefore, we think that when a boy shows a distaste for farming, he ought not to be encouraged too much to make it his life business, for very likely he will be a square peg in a round hole.

But, if on the other hand, a boy shows a decided liking for farming, for dairying, fruit growing or poultry, then he should be encouraged to get all of the education and practical training possible, with the thought that if he has knowledge and love for it, he can obtain as much success and happiness out of farming as from any other business.

A Bill That Ought to Have Passed

ONE of the bills which we were sorry to see fail of passage during the last days of the New York State legislative session was the resolution providing for a legislative committee to study cooperative marketing and to report back to the next legislature. Every farm organization in the State and nearly every farmer who understood the purpose of this resolution, endorsed it because they thought there was some opportunity for such a committee to be of service in finding and helping to correct some of the present marketing evils with which farmers and consumers are constantly contending.

The Good "Young" Times

The "Old Times" May Have Been Good—But, Who Wants to Go Back to Them?

By A. A. READERS

I READ with much interest the article on "The Good Old Times," and at the editor's invitation to us of the younger generation, I could not refrain from speaking in behalf of the modern times.

When we look down the tortuous path of years to the Salem witchcraft days and the dark epoch when hanging was the penalty for no less than a dozen crimes of different nature, we can not but admit that this old world of ours *must* be growing better, wiser, more just and more merciful. Surely it is but a merited tribute to Christianity to admit that it keeps getting a firmer and better foothold through each cycle of time. Why? Population is increasing the good with the bad. And since Good is the stronger, it naturally follows that Bad is losing ground.

Of course there will be crime as long as the world lasts, and knaves in each generation. Evil will go on lurking in movie theatre and dance hall—for evil will find an inlet anywhere; it is a thing which will never modernize. It ran rampant long before the movie came into existence and when dancing was included in sacred ceremonies. There are good, bad and indifferent movie films on the market; as many clean, wholesome, instructive ones as there are the reverse. "Good or bad—choose," is a world old test for the moral fibre of every generation.

But the headstrong youth of to-day would have been identically the same under the restrictions of long ago. Discipline of the young was in those days, on an average, more rigid than now. Witness the district school of a hundred years ago where the ferule and the birch were absolutely essential to the maintenance of a well conducted school. These instruments of torture are practically obsolete now—indeed a child who can be reached no other way is a rarity in our present day schools. Therefore our modern methods of child training also prove evolution along those lines, for the children are the better for it.

No Longer Places for Vengeance

Prisons to-day are more places of reformation than of punishment (or vengeance). Our intitutions for the insane are really hospitals to treat the mind diseased. Once they were merely places of confinement, and many a dark tale has been told of almost unbelievable brutality and inhumane methods of subjection.

Compulsory education in many States to-day is proving the psychological adage "Education broadens the mind." Eighty years ago such a thing as enforced attendance was unknown. A very large percentage of the voters were ignorant and illiterate. Politics had a far greater scope for "Rottenness" than they have at the present day.

Here in the country the rural free delivery and parcel post system are indeed a boon to the farmer, for they bring the city to his door, figuratively speaking. He can trade, too, with the city stores without bothering to crank up his flivver and burn gallons of gas—though he can at a pinch—and is fortunate at being able to do so.

Then, too, time and evolution have brought to mankind many life-saving devices that we who are accustomed to, fail to fully appreciate.

In the old days there were many "ships that never returned" and lives of waiting ones that were one long heartache of suspense and anxiety. To-day we think no more of seeing our friends off on an ocean liner than our great grand-parents did in saying adieux to loved ones taking a lengthy river voyage—because we know and trust that wonder of the air—Marconi's wireless which on lightning wing over the briny deep safeguards those we love who traverse "That wild, wet road, called the sea."

Scarcely second to the wireless for efficiency and safety is the less complicated, yet indispensable telephone. When little Bobby terrifies his parents in the still watches of the night by a grim wrestle with that deadly enemy of budding childhood—membranous croup, a hurried call over the wire brings the doctor in a few minutes by aid of his trusty car, whereas in olden times, father must "hitch up" and drive madly over miles of bad country road, leaving the anxious mother alone with the little sufferer who often was beyond all aid that was earthly when father at last returned with the doctor.

Advances in Medical Science

Another instance of the lack of timely telephone and chugging motor salvation is this: Two young men, in our town—long before my day—after a few days of physical torture, died of a mysterious ailment diagnosed as "inflammation of the bowels," when a brief trip by auto, the hospital and an operation in each case would have brought relief and a new lease of life to those who were doomed by that once dreaded malady—to-day known and little feared—appendicitis.

Many maternity cases have been hurried to the hospital by auto, at the eleventh hour, and mother and child snatched from the jaws of death, while in the good old days similar cases met only the useless ministrations of a midwife or a doctor whose specialty was not always obstetric cases. The result, with no alternative must be a strong, useful life snuffed out—a home made desolate.

The munificent wage of the present day, despite the high cost of living, is yet another evidence of progress and the improvement of conditions. Long ago when a widowed mother found herself the sole breadwinner for her little brood—wages were low—very low for women's work; often from fifty cents to one dollar per week, seldom more—to keep her little flock together and to stave off the grim wolf was an impossibility. She was therefore obliged to "bind out" her fatherless little ones as best she might, often to lives of abuse or moral corruption—robbed of their birthright; the influence of mother-love.

To-day the widow, when not protected by insurance, may secure a lucrative position and thus keep her little ones together to grow up under her guidance and protection.

None of us, I am positive, would be willing to go back and live in "The good old times" even though they might have held much to be desired. —MRS. WM. W., Wadhams, N. Y.

Orchard's where I'd ruther be—
Needn't fence it in fer me!—
Jes' the whole sky overhead,
And the whole airth underneath—
Sorto' so's a man kin breathe
Like he ort, and kindo' has
Elbow room to keerlessly
Sprawl out len'thways on the grass
Where the shadders thick and soft
As the kivvers on the bed
Mother fixes in the loft
Allus, when they's company!

Plague! ef they ain't somepin' in
Work 'at kindo' goes ag'in
My convictions!—'long about
Here in June especially!—
Under some old apple-tree,
Jes' a-restin' through and through,
I could git along without
Nothin' else at all to do
Only jes' a-wishin' you
Wuz a-gittin' there like me,
And June was eternity!

—*From Knee-Deep in June, by James Whitcomb Riley.*

What Is Needed In Every Farm Home

FOLKS living on the farm, as a rule do not bathe with so much frequency, nor well enough to be really sanitary; and I cannot blame them very much. Remember, I am speaking from experience. I live on a farm.

The usual course of procedure for the one who wishes to bathe is to secure the privacy of the kitchen while the remainder of the family are notified to keep out. The usual privacy of the bathroom is lacking. A tub is dragged in. Water lugged from the spring or well, and hot water is added from the stove or range.

'Twas Ever Thus

Usually the remaining essentials for a bath are gathered together and a lot of time is used up in this way. In the course of the bath the usual ring of water is splashed around the tub. Generally the most inopportune time has been chosen since about the time the bather is busy, each one outside of the room thinks of something they need and it is in the room the bather occupies. He or she is interrupted to deliver the needed articles to the door.

The tub must be emptied. Soap, towel, etc., must be placed in their respective places. Considerable fuss for a bath. Any wonder lots of people dread it and go without. They are indifferent to the merits and virtue of bathing. Stop a moment and think—engaged in dirty work; go to bed dirty, get up dirty, stay dirty. Is it any wonder the doctors and undertakers are reaping a harvest?

Very few families need be without a bathtub. You may think you cannot afford it.

(*Continued on page* 499)

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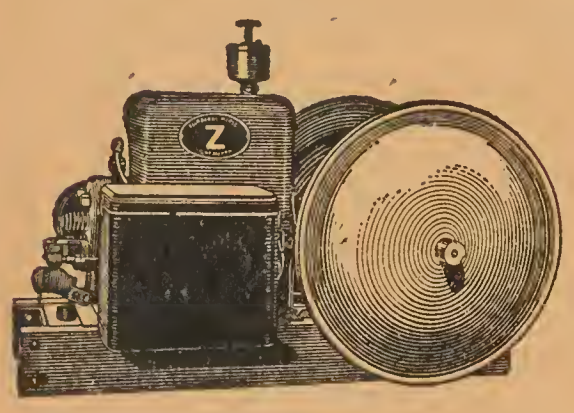

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The Home of His Fathers

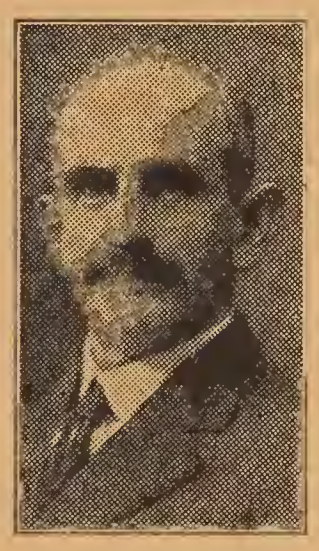
The Story of the Man Who Would Not Sell His Farm

By J. VAN WAGENEN, JR.

"And Ahab spoke unto Naboth saying: 'Give me thy vineyard that I may have it for a garden of herbs because it is near unto my house and I will give thee for it a better vineyard than it, or if it seem good unto thee, I will give thee the worth of it in money.'

"And Naboth said unto Ahab: 'The Lord forbid it unto me that I should give the inheritance of my father's unto thee.'"

WE made a little group who sat around the fire one winter day between sessions of the Farmers' Institute and talked of cattle and crops and neighborhood happenings and human-interest affairs. Then it was that I heard the story of "the Man who would not Sell his Farm." I am setting it down as I heard it in outline from one who lived neighbor to the hero. If I have tried to embellish it in some details or have in any way availed myself of the story-teller's unquestioned right to fill out the picture or to add to the colors—nevertheless I insist that I am repeating the story as it was told to me.



J. VAN WAGENEN, JR.

The place was out in the lovely Finger Lake Country of Western New York by the side of one of those noble lakes which are the outstanding physical feature of that fat land. I do not know who first hit upon that happy phrase—"The Finger Lakes", but it is a descriptive inspiration for all these lakes are long and narrow and all run north and south and all lie parallel to each other like the fingers of a man's hand. It is a phrase so apt—so fortunate—that through all time to come, that region can never be known by any other term.

I trust that I am loyal to the old counties of Eastern New York, to the Hudson Valley, the Catskills and the Hill Country. We have more of history—more of tradition. We are richer in stories and folklore for we were an old settled region, in many cases for a full century before the first settlers (to use a quaint phrase of the Ithaca pioneers) "cast seed" in the fertile soils of Western New York. Romance and legend cling to the Eastern Counties. I do not suppose for example that Washington Irving could ever have found in Western New York any such fertile soil for story-telling as he cultivated so fruitfully in the Hudson Valley. But agriculturally the Finger Lake Country together with the Ontario Shore is the best of our State—less rugged, with a more uniformly fertile soil and with a kindlier climate than the Eastern plateau and in addition made beautiful forever by those long reaches of deep, clear, cold water filling ancient glacial valleys. The Red Man knew and loved the Finger Lakes, for among them was the site and capitol of the Iroquoise Confederacy which ethnologists are agreed represented the highest development of Indian culture to be found in the United States. All in all, to possess a farm in this fair and favored region is a birth-right not easily equalled.

The Story of the Settler

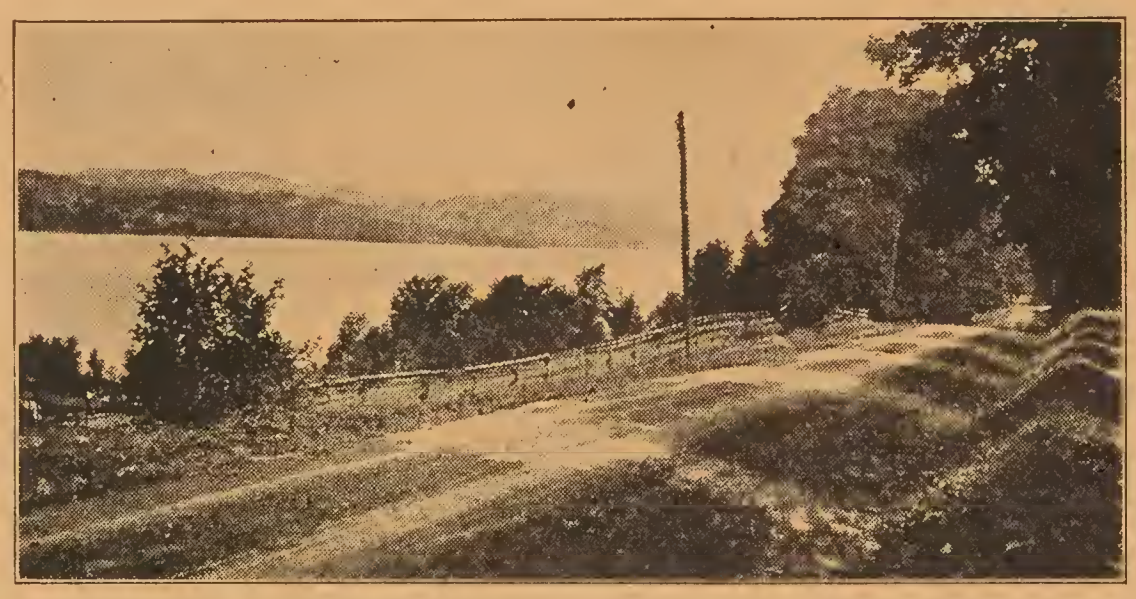
But the simple tale that I began to tell is this:

Down by the shore of one of the largest of these lakes is an old farmhouse that stands under old, wide spreading trees. The trees were old when the first comer began to chop out of the forest a spot for his cabin and he spared them because he was a man who took thought for the future, who knew how beautiful is a great tree, and how many generations of men must pass away before an oak or hemlock or pine attain their full lusty prime. This Puritan pioneer and his young wife were a part of that great wave of New England emigration which flooded into Western New York during the first two or three decades following the close of the Revolutionary War. To men accustomed to the stone-strewn, thin New England fields it must have seemed another Promised Land—a new Canaan—when they came into the country of which I write.

The old house by the lake was built by the son of the man who spared the roof tree and it covered the cellar hole of the first cabin. He reared it when the rigors of the pioneer period were giving place to a secure and substantial civilization. In size it was generous and it was built upon honor by a master-craftsman out of the oak and pine that grew about it. The years had dealt very kindly with the house and farm and it had gathered to itself what only the years can purchase—tradition. On it everywhere was graven the record of the passing generations.

Down Through the Generations

Through the rear door that looked toward the farmyard and barns had passed all the flooding traffic of those years—the simple, homely traffic of the farm. Through it had passed the heavy, rasping feet of man with milk pails and food-stuffs for the cellar—the feet of generations of men faring forth for the plowing or the harvest and returning again eager for the abundant tables. Through that door had gone the lighter footfalls of busy—O so busy—women going for the hanging of clothes or the feeding of poultry—the bringing of wood for the fire or the gathering of vegetables from the garden—the multitudinous, overflowing, crowding tasks of the women of our farms.



"The Finger Lake Country—Through all time to come that region can never be known by any other term"

The Doorstone Worn Smooth

Through it passed a long procession of the eager, restless storming feet of children who played around that door or entered it to be comforted in their little griefs by a mother's kiss or went noisily trooping through it with dinner pails as they set out for school.

What a long, long pageant it had been—sometimes gay, sometimes grave, but always ready for the day's work and the set task. No wonder the doorstone was worn smooth and hollowing beneath all those thronging feet.

The other side of the house looked toward the highway and the lake and here was the front door with its fanlight above it. This door opened into a hall with a big room on either side and here was the sanctuary of the more formal, less intimate life of the farm. Here in the old days—much more frequently than now—had been held the old time country merrymakings. Here in the room on the right hand the daughters of the house had stood side-by-side with the chosen lover to receive the sanction and approval of the church. Here men and women of the farm had at length had homage done them as they held court in the austere dignity of death. Through that same door in the thrilling days of '61 a son of the farm had gone bravely forth in a uniform of fine blue cloth and with pride in his eye and step. And up in the family burial plot beneath the pine tree a tiny faded flag waved in the breeze and a stone was set up in loving memory of Captain ———of the —th Company, Infantry, New York Volunteers, but the Boy himself slept well in the sandy field of the Battle of the Wilderness outside of Richmond.

The House Still as of Old

And the grandson of the pioneer had kept the house outwardly as of old—plain and severe with white walls and green blinds, but within he had brought to it modern conveniences and comforts for God had blessed and established the work of his hands. Around the house was the well-kept farm with orchards and corn fields and acres of wheat and generous gambrel roofed barns and a wind break of evergreens on the north and west and in front the smooth highway and just beyond the shore line of the lake and the water which took on all the moods of the sky above it—sometimes motionless and glassy on breathless summer days—sometimes flashing and sparkling when the heavens above were blue and the breezes ruffled its surface—sometimes dark and gloomy and sorrowful under leaden November skies. Seventy years and more the man had lived by the side of the lake. He knew it in all its moods and changes and its face was to him the face of a loved, familiar friend.

Now it chanced one perfect summer day that a most imposing car came rolling leisurely along the highway and just on the top of the rise of ground by the house it drew to the side of the road and the occupant stepped out and for a considerable length of time carefully studied the landscape and the surroundings. It was early July "the prime of summer time." A few towering clouds were serenely sheparded on a field of deepest blue. A pleasant summer breeze was blowing out of the northwest and the lake, blue as the sky above it, was wrinkling and flashing and here and there a tiny white cap broke broke on the blue, and here and there were acres of purple where the shadows of the drifting clouds swept swiftly over it. Now and then the graceful form of the unresting lake gull sailed across the field of vision. And from where he stood the man could catch the regular, rhythmical swish-swash plash of the little waves breaking on the pebbly shore. Three miles away on the other side of the lake stood out the swelling hillside with country roads etched on a green background and with patches of woodland and white walled farmhouses and big barns and the church spire of the hamlet on the hill.

All that Could be Desired

Then he turned and his eye took in the old, well-kept farmhouse under its mighty trees. He knew little of crops but he saw the beauty of the bronzing wheat that rippled and bowed to the breeze and he felt the charm of the young corn rows getting tall enough so that each plant danced and gleamed in the sunshine. But after all, crops did not greatly interest him. He had money—money enough so that he was

(*Continued on page* 491)

Pigs and Water!

Do We Realize the Necessity of Water for Hogs?

By R. B. RUSHING

IN my years of breeding pure-bred swine, I have tried to give my herd whatever I thought was best to their rapid development, and have studied all the various rations that can be made up of the grains and grasses grown on the farm, as well as those that could be made from the various by-products of the mills. These I have fed in various ways, sometimes dry, generally mixed with water into a rather thickish slop or mush. I have at times been able to get separator milk from the creamery, but this is generally so stale and so diluted with the washings of the factory that it is so unfit for feeding a good pig that I abandoned it some years ago. I have many times tried to convince myself that with a wet feed my pigs did not need special attention given to waterings—yet I have also given up this erroneous idea, and I presume that there are "others."

Water in Addition to Wet Feed

Now, I want to assure my fellow breeders that pigs as well as older hogs will drink lots of pure water, even when fed on a feed mixed with either water or milk. During part of the winter, I feed wet feed in the morning warmed by a steamer, and at one-thirty o'clock in the afternoon I drive the feed wagon over the entire line of pens and find that the brood sows with pigs and hogs of various ages have been drinking almost two barrels of pure fresh water from the well, and have seemed to enjoy it as much as they did their warm feed in the morning. At night I give them a feed of ear corn.

There is nothing that will quench thirst but water. The hogs may have just been fed even with warm wet mixture and yet they will turn to the other trough and take a few swallows of water. If this is not evidence enough that hogs need water, then I am mistaken. The question is—how to furnish fresh water at all times.

It is said that about one-half of a pig's weight is composed of water. A growing pig contains more in proportion, however, than does a mature fat hog in proportion to weight.

Before Them at all Times

To grow young pigs and get best results they must have sufficient water at all times or at frequent intervals during the day. If possible it would be far better to have good, pure, fresh water where the pigs can go at will and drink as often as they will. Pigs, like sheep, do not drink much at a time, but if water is where they can go at will they will be found drinking a little quite often.

One will often notice pigs drinking from filthy pools or puddles, where the water is not fit for a well-bred pig to drink. This is where germs often get into the system of the animals and cause trouble, and soon disease follows. I urge breeders and farmers who are trying to get good results in swine growing would give this matter of good drinking water for their animals more thought, and I feel satisfied that it would be found that better results would follow.

Automatics Clog Up

There are many self watering devices that at first sight look good, and I have had experience with most of them, but without entire satisfaction as those that have valves are sure to get clogged by dirt from the snouts of the pigs, settling in the cup and clogging the fountain, which of course causes the fountain to empty itself quickly. Then there are those in which a hog can get its feet, which will also close the works.

Think over these matters about watering your hogs and I believe many will awaken to the fact that they have been neglectful in that important part of the caring for their herds.

GENTLE SOWS ARE MOST PROFITABLE

R. H. NEILL

There have been volumes written about the feed and care of brood sows—all good advice, but I have found that it isn't all care and feed that constitute success in hog breeding. I have kept a record of my sows and it seems that a good brood sow is born so. Some sows would not be profitable even with the best of care. I wouldn't keep a sow on my premises that was clumsy, nervous or cross.

A neighbor was complaining to me about his sows killing so many of their pigs. When I was about to step into his pens to look at them, he called to me, "Better take that fork with you, the sow is pretty cross," I soon found this to be true. The sow came bouncing out at me with her mouth open, forcing me to take refuge on a nearby fence. So I kept out. It wasn't surprising that she had killed most of her litter. As for me, that sow wouldn't stay on my premises longer than it would take to fatten her for the market.

An Ideal House for Hogs on Pasture

It does pay big to have gentle sows. A tame sow will look after her pigs much better than one like the above mentioned. Because of her fear she thought her pigs were in danger, when I stepped into her pen. Her pigs will grow up to acquire the same fear. Pigs from tame sows naturally grow up tame. And I have found wild and nervous hogs harder to confine, in regard to fences.

I teach my sows to have no fear of me, by petting and talking to them when among them, and always make special efforts to gain their confidence during the few weeks before farrowing time. As a result, I need not go armed with a pitch-fork in caring for them. I have often climbed into their pen and played with their pigs, the sow remaining perfectly quiet, having no fear for her little ones.

A HOUSE FOR HOGS ON PASTURE

C. M. BAKER

We find that an A-shaped house, shown in the accompanying illustration, is quite satisfactory for housing sows and pigs in the springtime when they should be on forage to secure plenty of green feed, such as Dwarf Essex Rape or alfalfa, and exercise. The house in the illustration is 7 feet wide, 6 feet high and 10 feet long. It is made out of matched pine lumber, so that it is tight and warm enough, and a sow and pigs may be kept comfortable during cold spells. It has a wooden floor.

Such a hog house can be used satisfactorily at farrowing time, even during cold weather, if some attention is given to providing the sows with plenty of straw, and when the weather is extremely cold a lantern may be hung in the house.

A small swinging or hinged door is placed in the back of the house, which should be raised during warmer weather in order to povide ventilation; or, if desired, an entire side may be raised and propped up, thus making a cool house during hot weather. This also makes it easy to clean it out and disinfect it quickly. The house is on runners and may be pulled about in any location by a horse.

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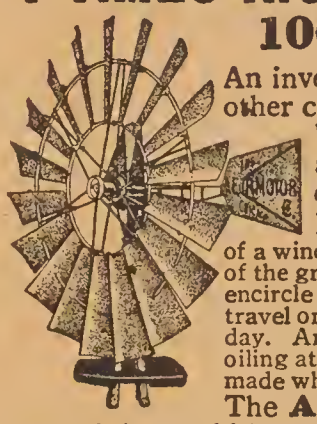

An inventor who could develop an automobile, a railroad car or any other conveyance on wheels which would perform such a feat would be considered a wonder. But such is the record of regular accomplishment by the Auto-oiled Aermotor during the past eight years in pumping water.

Did you ever stop to think how many revolutions the wheel of a windmill makes? If the wheel of an Aermotor should roll along the surface of the ground at the same speed that it makes when pumping water it would encircle the world in 90 days, or would go four times around in a year. It would travel on an average 275 miles per day or about 30 miles per hour for 9 hours each day. An automobile which keeps up that pace day after day needs a thorough oiling at least once a week. Isn't it marvelous, then, that a windmill has been made which will go 50 times as long as the best automobile with one oiling?

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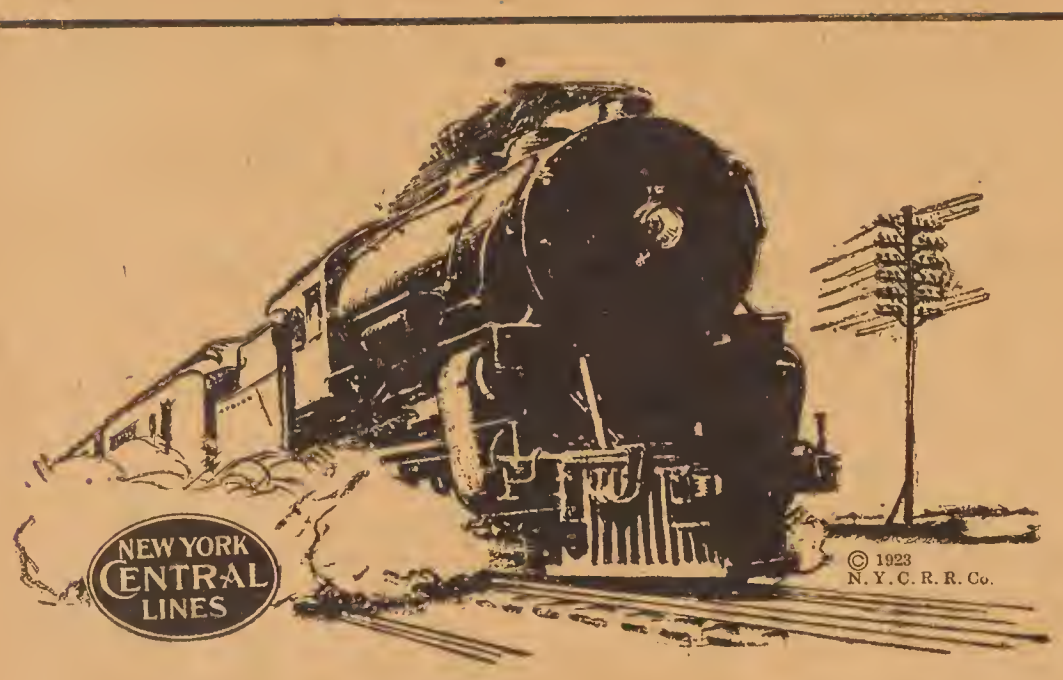

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New York Farm News

Norgord To Direct TB Eradication Work

C. P. NORGORD, formerly Commissioner of Agriculture of Wisconsin, since 1915, has been appointed as Deputy Commissioner of the Department of Farms and Markets. Mr. Norgord will be charged with the responsibility of carrying through New York's campaign to eliminate tuberculosis in dairy herds of the State according to Commissioner Pyrke, head of the Department of Farms and Markets. The appointment of Mr. Norgord follows the resignation of Deputy Commissioner George E. Hogue.

Commissioner Norgord is the originator of the area-test policy of disease control measures which was put into effect in Wisconsin in 1917. The first area work in the United States was started in Waukesha County, Wis. in October, 1917, but Barron County, in the same State was the first in the United States to complete its area test. (January, 1921).

In 1918 Commissioner Norgord arranged a cooperative agreement between the Federal Government and the State of Wisconsin. Since that time over 40 States in the Union have entered into cooperative arrangements with the Federal Department.

AMONG THE NEW YORK FRUIT GROWERS

ALVAH H. PULVER

The experiment station men at Fredonia are much interested in a new variety of grape similar to the Concord. The plants have been under observation for some time, and last year the vines bore their first fruit. It is believed that the newcomer will prove a worthy variety. The parent vine was found near Westfield in a small vineyard. Its growth was so vigorous and its fruit compared so favorably with the ordinary Concord that the station authorities were called in for observation. Cuttings were set out in the Fredonia station grounds between rows of plants from the original vine from Concord, Mass, on one side and the commercial sort on the other. Everything points to a most desirable new grape.

Famous Holstein Cows

Aaggie owned by Samuel Barber of Scottsburg, Livingston County, N. Y., a grade Holstein that produced last year 25,295 pounds of milk containing 1,129 pounds butterfat, a world's record for grade cows. Mr. Barber won the cup donated by the Livingston County Trust Company for having the highest producing cow in the Livonia Dairy Improvement Association. Mr. Barber's record is especially noteworthy as this is his first year in the association, and his herd averages 15,000 pounds per head

Look For Short Peach Crop

In Monroe County it is freely predicted that the large crop of peaches last year which drew so heavily on the energy of the trees, will work against any big showing for the present season, even if most favorable weather conditions ensue throughout the season. However, unseasonably cool weather has been a rather constant factor through much of the spring, three mornings in the first half of May showing a mercury registration of below 30 degrees, the coldest being 27. The orchards are so backward for this time of year that the damage ordinarily inflicted by this kind of weather will not be fully felt, especially in the fruit district close to Lake Ontario, where all low temperatures are tempered.

The peach growers seem most concerned over the lack of new wood. Trees were so laden last year that little new wood was produced, and as it is in the yearling branches that the blossoms and fruit appear the outlook for fruit is by that much reduced. The older trees, those that received winter injury during the severe cold of 1917-18, cannot be expected to produce even an average crop. In some sections, notably in Monroe County, there is a smaller acreage of farm land planted to peaches than was the case a few years ago. Old orchards have been cut out and not enough young trees have been planted to make good the decrease. What young orchards there are, however, have a good chance to bear a good yield this season, as the lateness of the blooming season will act as a fair guarantee against harm by frost. It is possible that orchardists will have to contend with brown rot this season and orchard owners are being asked by the farm bureaus to watch for the disease.

Famous Holstein Cows

May Echo Sylvia—one of the most famous cows of the breed, has a record of 152 pounds of milk in one day, 1,005 pounds in 7 days, 4,196.9 pounds in 30 days, 8,220 pounds in 60 days, 11,855 pounds in 90 days and 12,898 pounds in 100 days. She is owned by A. C. Hardy of Brockville, Ontario

IN NORTHERN NEW YORK

Franklin Co.—This has been the most backward spring Franklin County has known for many years. Most of the farmers were very late in getting in their spring grains, due to the fact that the ground was so wet. Corn and potatoes were planted very late. Cows went out to pasture rather early but dairymen continued to feed in the barn. A good many farmers had to buy hay this spring as fodder ran out before the stock went on pasture. Very little farm real estate has changed hands this spring, much less than usual. Farm prices of farm products are: hay $18 a ton, butter 48 cents, oats 58 cents a bushel, wheat $1.25, potatoes 75 cents, eggs 25 cents.—H. T. J.

Essex Co.—Essex county has a new Holstein champion. John M. Dewey, owner of Scenic Farms and one of the pioneer Holstein breeders of the county and present owner of one of the largest herds in northern New York, has recently made a record with one of his pure-bred Holsteins, Scenic Wellsland Korndyke 2nd. At the age of 5 years 11 months 21 days, she produced in 7 days 854 pounds milk. Four times during a 30 days' test, she made better than 30 pounds of butter in 7 days. In 30 days she produced 128 pounds butter and 3,404 pounds of milk. Her past test record was 127 pounds milk. This remarkable cow exceeds the milk production record of the former county champion by over 100 pounds milk in 7 days and over 7 pounds in one day.

I wish to say that the American Agriculturist is one fine farm paper, full of good, clean, sound reading.—W. H. Hall, Bath, N. Y.

New Jersey Promises Good Fair Season

W. H. BULLOCK

NEW JERSEY promises to have a busy season of county and local fairs this year and reports of their secretaries show larger prize offerings and more classes in important live-stock, fruit and vegetable departments. Following is a list of fair dates already decided upon for the current season:

Trenton Interstate Fair, Trenton, September 24-29.
Warren County Farmers' Picnic, Belvidere, August 15.
Gloucester County Pomona Grange Picnic, Pitman, August 15-17.
Flemington Fair, Flemington, August 21-25.
Atlantic County Fair, Egg Harbor, August 29-September 1.
Cape May County Fair, Cape May Court House, September 6-8.
Mount Holly Fair, Mount Holly, September 11-15.
Sussex County Fair, Branchville, September 18-21.
Garden State Fair, Greenwich, September 19-22.
Carney's Point Fair, Carney's Point, October 18-20.
County Board of Agriculture Meeting and Exhibit, Hackensack, December 13-15.

Some of the fairs are making special effort this year to prevent the spread of bovine tuberculosis. The extension authorities have urged the fair managers to keep untested cattle entered for exhibit in a separate place; also to give thorough disinfection of the premises where live-stock is housed. Issuing of certificates of the tubercular test within 60 days of the fair dates, by veterinarians approved by the State authorities, is urged before the cattle entered can be shown among those which have had the tubercular test.

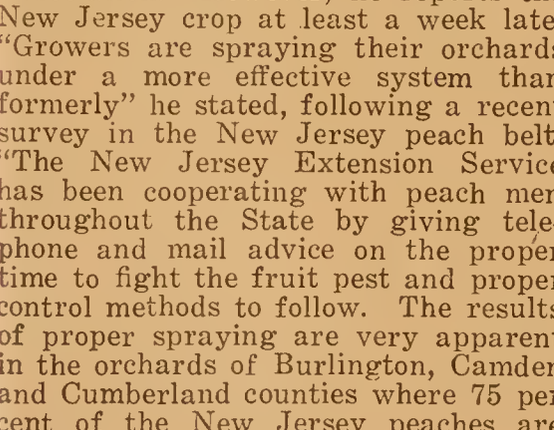
Jersey Peaches a Week Late

New Jersey promises a good crop of peaches this year despite unfavorable weather during the spring, according to James E. Klahre, Manager of the Jersey Fruit Growers' Cooperative Association. However, he reports the New Jersey crop at least a week late. "Growers are spraying their orchards under a more effective system than formerly" he stated, following a recent survey in the New Jersey peach belt. "The New Jersey Extension Service has been cooperating with peach men throughout the State by giving telephone and mail advice on the proper time to fight the fruit pest and proper control methods to follow. The results of proper spraying are very apparent in the orchards of Burlington, Camden and Cumberland counties where 75 per cent of the New Jersey peaches are produced."

Fighting for Forest Protection

The fight for protection of New Jersey forests is gaining ground, following the very severe loss from forest fires this spring which definitely established a popular sentiment for the move. The New Jersey State Department of Conservation and Development has now created plans for the use of an appropriation, granted by the last legislation which gave funds for the employment of more wardens. Recent announcement by that department indicates the appointment of 29 sectional fire wardens which will be chosen under Civil Service examinations in early June.

Famous Holstein Cows



May Walker Ollie Homestead is the American champion butter producer, having a record of 1,523.23 pounds butter in a year. She is owned by the Minnesota Holstein Company of Austin, Minn.

The Improved Binder of Today Soon Pays for Itself By What It Saves

Every year the old binder falls off a bit more in efficiency. The owner hardly realizes the gradual decline. Finally comes a time when the risk is too great. Poor cutting, faulty binding, clogged elevators, heavy draft, delays, emergency repairs, lost bushels and loss of temper—these are incidents of the harvest with a worn-out binder.

In the meantime the new McCormick, Deering or Milwaukee binder goes into neighboring fields and surprises and pleases its owners in a hundred different details. If you haven't seen the perfected binder of 1923 you can't realize what a vastly improved harvester it is. You will find it a marvel of skill and good workmanship, simpler, better made, easier to handle and ready for many years of good service.

Harvest is the critical time when all your plans and labors come to a head; go at it with trustworthy equipment. Will your binder stand the test this season? If any doubt is in your mind, invest in the crop-saving machine sold by your McCormick-Deering dealer. Look the binder over in detail at his store.

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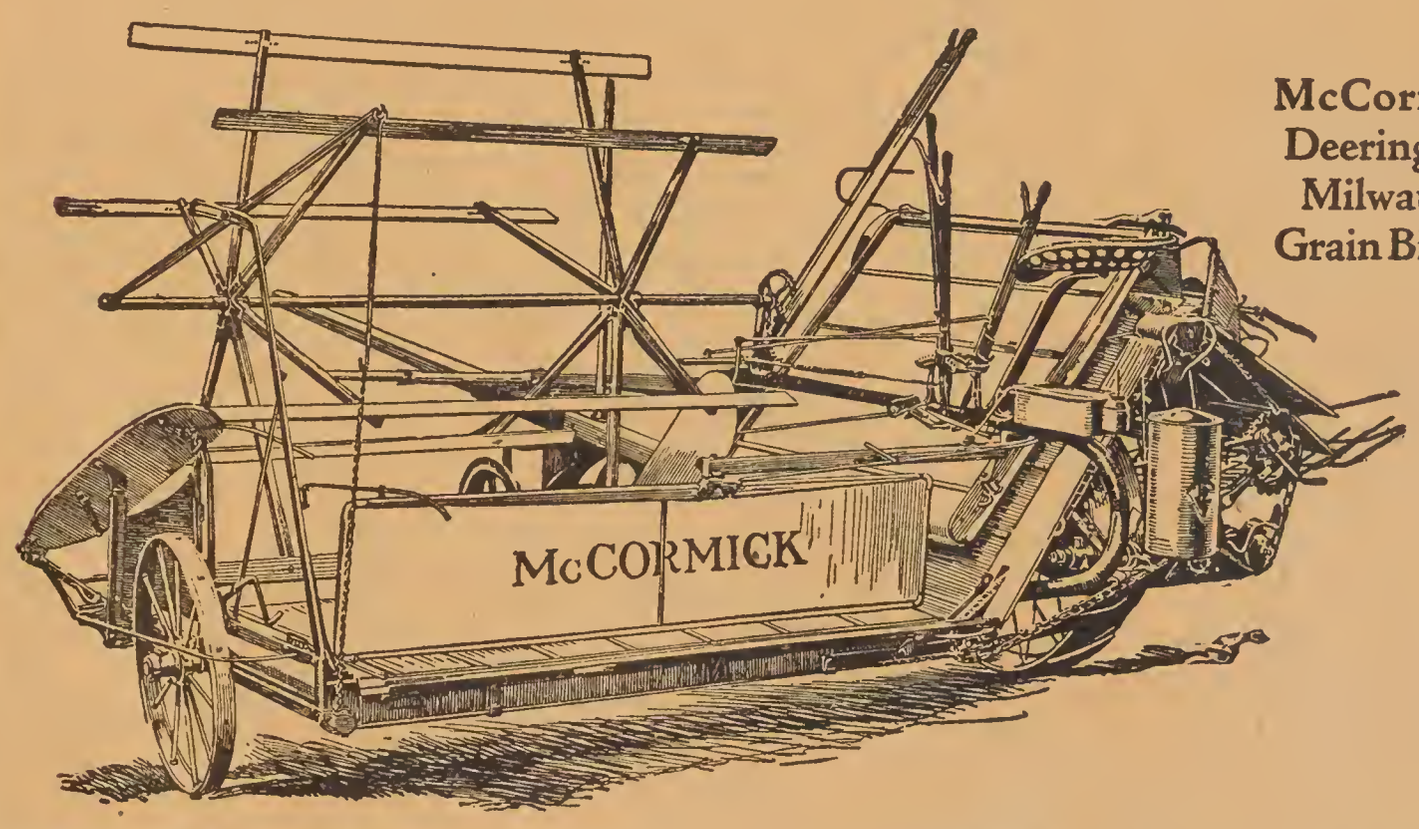

McCormick, Deering *and* Milwaukee Grain Binders

Do You Need Help?

THERE is a tremendous shortage of farm labor this year, worse in some sections than in others. If you are one of those who need help, insert an ad in the CLASSIFIED COLUMNS of the *AMERICAN AGRICULTURIST.* It is read by over 120,000 people. There must be at least one in all that number who would be attracted by your message.

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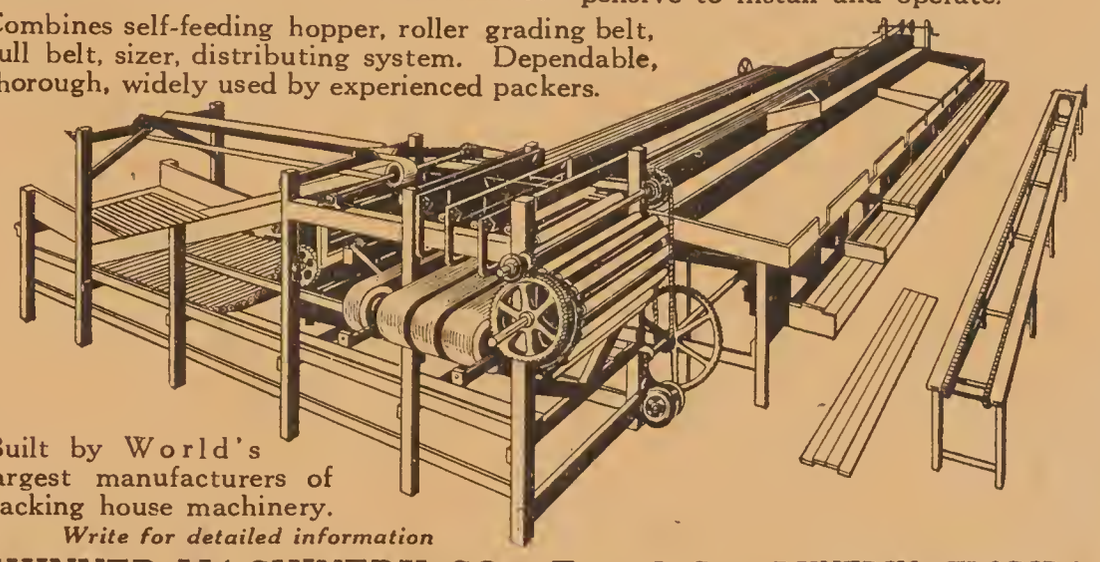

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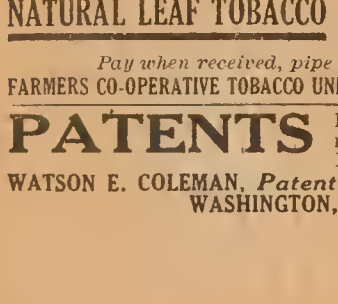
"I was over-run with rats," writes H. O. Stenfert of Redford, Mich. "Seemed to be several hundred of them. Dog, Ferret and Traps failed. Tried Imperial Virus and was rid of them all in a short time. Have found rat skeletons, large and small, all over the farm."



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Rearing Vigorous Pullets

The Factor That Determines Winter Egg Yield

By CRAIG SANFORD

THE poultryman has changed the old saying of "Don't count your chickens before they are hatched" to "Don't count your pullets until they are in the laying house." But to go even farther, the poultrymen are realizing that the summer care of young stock is often the cause of the pullets going into a mid-winter molt. A pullet that is properly finished should have a large frame carrying a surplus of flesh when it is put into the laying house in the fall. This reserve of flesh may be likened to the spare parts of a machine, without which no car can run very far without being wrecked. A pullet in this condition can stand up under illumination in the winter and is far less apt to break down with disease. The size of the egg will increase more rapidly and will soon leave the classification of pullets' eggs. Such a bird has constitutional vigor which can only be obtained by proper management during the summer.

No Secret Systems

IN reviewing the successes enjoyed by many of our large breeders you will find that none of them have any particular secret system. Rather they observe several broad principals and combine common sense to tie them up to their particular conditions. The object of this article will be to cover points of interest concerning range management that have been proven on successful commercial plants.

In these days of high feed prices everyone knows the value of culling our hens strictly, but we are only just coming to realize that our culling should start with the young stock. This should be done at the time when they are shifted from the brooder to the range. They are usually from six to ten weeks of age, depending upon the season when they were hatched. They are easily picked out, but so many times they are left with the thought that they would catch up. While some of these birds do become less noticeable, nevertheless these are the birds that for some reason never do start to lay until spring when eggs are cheap.

If these birds were marked you would also find that they were the same birds that stopped laying in early summer. It certainly pays to put these under-sized, slow-developing pullets in with the birds that are to be sold as broilers. If they are not worth including in this lot, it is cheaper to kill them than to carry them at a continual loss. It is better to have fewer birds on range under the best conditions possible and in this way get pullets that are capable of making a uniform rate of growth. In poultry even more than in anything else it is the quality and *not* the quantity that pays.

From Brooder to Range

WHERE chicks are raised in brooders the problem of transferring them to unheated quarters is a very important one. When this takes place it depends on the time of year and the prevailing weather conditions. Under ordinary conditions the heat should be decreased gradually. From the third week on, the temperature is lowered so that when the sixth week comes little if any heat is needed. When a cold spell comes heat must be increased to prevent crowding and piling up. Chicks should be without heat in their brooders for a week before being transferred. Make the transfer on a bright warm day, preferably in the morning so that the birds may become accustomed to their new quarters before night.

The house in which the birds are placed must conform with several conditions if a vigorous growth is to be maintained. Perhaps the most important feature is to avoid overcrowding. When the birds are put out weighing a pound the house does not seem too full, but as their size doubles and trebles the house often becomes too crowded. Towards the end of the season 75 birds are enough for a six by eight-foot colony house. There should be plenty of perch room and every effort should be made to get them off the floor as soon as possible.

Summer time should be a vacation time for the pullets. They should have every opportunity to enjoy the fresh air. Ventilation is more necessary in the case of poultry than other farm animals since a large amount of moisture is carried out by the breath. The arrangement of the house should be made with this in mind. Some breeders have the entire four sides of the upper part of the house in curtains. These are removed in the summer. The perches are started quite low and are gradually raised as the season advances. If the houses are faced towards the south they are automatically drying and disinfecting themselves throughout the day.

Since sunlight is the very cheapest disinfectant that we have, it certainly ought to be used. It is not necessary to have a deep litter in a colony house. There should, however, be enough to cover the floor. The remaining step in sanitation, is to paint the perches with a heavy coal tar product such as carbolineum. This should be done before the birds are placed in the house. This is a very effective remedy for red mites, a blood sucking insect that invade the birds at night and after filling themselves up with blood, retire into cracks around the perches.

We now come to the question of the range itself. There should be an abundance of green succulent food. It is not enough to give them the run of a packed ground that has some dried grass. Alfalfa or red clover make the best range cover but any orchard or pasture will be satisfactory. The range should be large enough to provide plenty of exercise. It is really surprising to compare the difference between two lots of birds, one of which has been on range ten days longer than the other. There is some element that they get that we have been unable to substitute when birds are not on the ground.

Water—An All Important Factor

WATER is an all important factor in chick growth during the summer. It should always be available and placed in the shade where it will keep cool. The birds also need some protection from the mid-day sun. If there is no natural shade from trees or bushes a few rows of field corn will serve the purpose.

Dry mash should be supplied in hoppers that will protect it from the weather. A good standard growing mash consists of 200 pounds wheat bran, 100 pounds each of corn meal, wheat middlings, heavy ground oats, and either meat scrap or some dried milk product.

Finally comes the finishing off of the pullets. It must be remembered that grain is fed to keep up the body weight and that mash is the feed that gives the eggs. A bird that does not keep up its body weight will go out of production until it has built up its weight again. For this reason pullets should not be pushed into production, but rather fed so that when they start laying they have a surplus of flesh that will help to carry them through the winter.

This is best done by cutting out the mash from the birds on range for five or six weeks prior to the time they are put in the laying house. This will build up their bodies and retard their sexual development. Grain is fed three times daily during this period giving them all they will clean up. Some breeders merely take all the high protein feeds out of the mash instead of taking the mash away entirely.

Keep the Birds Growing

DON'T let the birds stay out in the trees too late in the fall. At this time a cold snap often comes accompanied with dampness and the birds are brought into the houses with colds. If this happens all the benefit of proper management during the summer is lost and the birds never seem to entirely come around again until quite late in the year.

It is good to keep in mind a standard rate of growth and to check up on your birds as you go along to see if they

(*Continued on page* 498)

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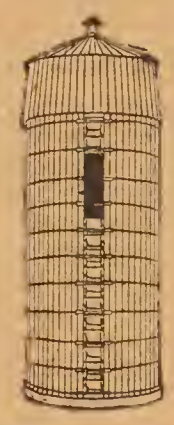

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The Home of His Fathers

(*Continued from page* 486)

ambitious to develop an estate and to play at farming for some months in summer. The place seemed to him to be the one above all others for his purpose. He might raze the old house and avail himself of the noble setting of trees to lend dignity to the new home. Or perhaps it would be better to make it into a cottage for the superintendent while he built himself a great, pillared, far flung secluded mansion further back from the road. That wheat field and pasture could easily be converted into the most attractive golf course in that part of the State. In summer a swift motor could bring him down from his city offices in an hour and it would be fine to have his less fortunate friends down for week ends of country pleasures. It made a wonderfully pleasant dream and he thrilled a little when he thought of his beautiful wife and how her color would come and her eyes shine when he told her of his plans. It would be a bit of lover-like chivalry to present her with the deed. Yes, it was all settled—all but a few formalities.

Counted Chicks too Soon

So he walked briskly to the house with the pleasant feeling of satisfaction of one who is a bearer of pleasant tidings, found the owner busy with some farm task, greeted him pleasantly with assurance and said: "I have decided to buy this farm." The old man, a little mystified—not fully comprehending perhaps just what was meant, replied: "Thank you, but I do not care to sell." And again the stranger spoke—soothingly as one who talks to a well-meaning, unreasonable child. "Oh well, maybe you think you don't, but I am sure I can make it worth your while. There are plenty of other farms just as good. I am willing to pay you for the land and location and view. I don't think we will have any difficulty in getting together." And again the old man answered, this time with a new note in his voice: "But I have just told you that I couldn't think of such a thing. This farm is worth more to me than to anybody else."

Then the Man of Large Affairs who was not accustomed to be denied, began to be impatient that the farmer should be such a skin-flint and drive his advantage so hard and he said: "Well maybe you think so—but my time is money. I didn't come here to stand all day and match pennies and dicker over a thousand or two dollars, more or less. Set any price in reason—anything that seems right to you. My lawyer will take care of all details and make you no trouble. Just name a price. There will be a great deal to do here and I want to get started." Then the old man flamed into sudden anger and cried out in stern rebuke. "Sir, what do you mean? Can't I make you understand that neither you nor any other man has money enough to buy the land that my fathers cleared and the spot where they lie buried? Don't you know that I am going to die in that corner room there where I was born?"

A Philosophy He C uld Not Fathom

So at last the great man understood and turned on his heel and muttered "Fool" and strode back to the car. He spoke a word to the waiting chauffeur who touched his cap in reply. Then the great, gleaming car leaped into pulsing life at the touch of the throttle and went sweeping swiftly on its arrogant way along the smooth ribbon curving between the pleasant fields. But the rider within saw not the sweet summer landscape that lay about him but sat questioning and debating and communing with himself concerning this strange Farmer-man whose ideals and viewpoint and philosophy he could never hope to understand.

So the story ends—almost before it begins. More and more as I have thought upon it, I have come to have a very great admiration for the old man who dwelt by the side of the lake.

Of one thing I am sure—that there is nothing more needed in our American farm life than a greater sense of the value of permanency. We ought to go about our work, not only as if we were farming a farm but also with the feeling that we are founding a dynasty. As a matter of fact, every generation ought to stand on the shoulders of the generation gone before. If we are ever to develop a fine, gracious, cultured farm type of civilization, we must also develop some reserve capital—modest wealth, if you will. When we shall come to have a more general farm tradition that the boy shall take up the father's task just where he laid it down then we shall have a race of landowners and farmers which will represent the fine flower of American life.

Something is wrong—ideals are false—when we still have great numbers of farmers who farm, looking back and whose secret or open ambition is merely to make money enough to permit them to "retire and move to town." Very often the man who has thus realized his hope is a most pathetic figure. His old occupation is gone and there is nothing else to take its place. He has never learned the pleasures of study or the companionship of noble books and very often his days are long and empty.

Often I have read those sonorous chapters in the Book of Chronicles which sketch the outline story of the long, long dynasty of the Kings of Judah. You will remember there that one unvaried, selfsame phrase repeated again and again and again—repeated concerning almost every Hebrew King: "And he slept with his fathers and his son reigned in his stead." When we shall sleep with our fathers, as some day all of us must, God grant that there be not lacking, if not a son, then at least, one who loves us, to reign in our stead.

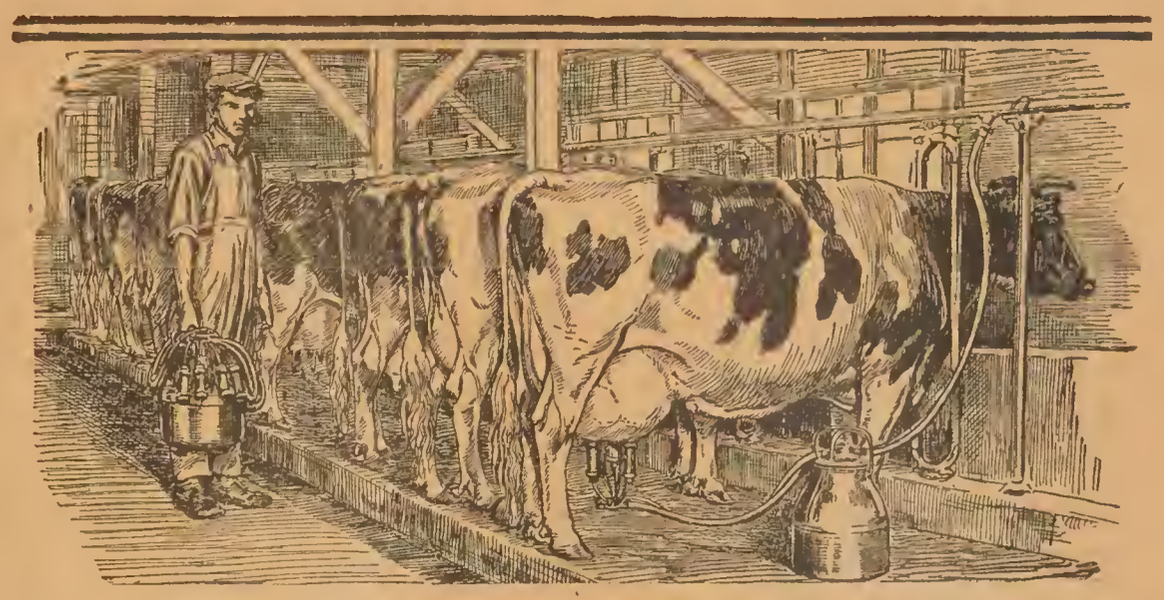
Holsteins—Why They Lead

(*Continued from page* 483)

milk. An interesting fact may be noted that a great many Guernsey and Jersey breeders retain a few Holstein cows as nurse cows for their calves because young calves cannot digest very rich milk. The milk from no other breed so closely resembles human milk as does that from the Holstein cow. Many leading physicians agree that Holstein milk is the best to feed infants that have to be raised on the bottle and for the growing children and sick people. Dr. E. V. McCollum of Johns Hopkins University, one of our foremost authorities on human nutrition, makes this statement: "Milk is our greatest protective food, and its use must be increased rather than diminished. No family has the right to purchase any meat until each member has at least a pint of milk daily. Milk is just as necessary for the maintenance of health in the adult as in the young." Dr. Rotch of Harvard University, a well known authority on pediatrics, says: "The Holstein-Friesean cow represents the most perfect milking animal known, having every characteristic of a cow suitable for an infant's milk supply."

Many individuals like good rich cream for cereals and dessert. However, this is a luxury and may be compared with any product which is used as a luxury. Milk having no more fat than does Holstein milk is much more digestible since the size of the fat globules permits much quicker and much more thorough emulsifying in the digestive tract. Holstein milk is more palatable over a long time since the fat in milk very often becomes offensive to a sick person who has to drink it because of their inability to digest more concentrated food.

The future of America in the form of our children is a vital factor and since the Holstein cow produces the one thing which is most essential to the development and growth of these children there is little doubt but that she is destined to develop and progress individually and as a breed. The other factor which is of as much importance in the future of the breed is that, for the average farmer under average conditions, there is more profit in the Holstein cow due to the fact that she is the greatest milk producer of the dairy breeds. I see no limit to the growth and development of the Holstein breed so long as we select carefully and breed intelligently.



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If you are milking ten or more cows, you can't afford to be without a De Laval Milker. You can buy one on such easy terms that it will pay for itself by the time the last installment of the payment becomes due.

Figure what it will mean to do your milking in at least one-half the time you now do it. It may mean the saving of one or more men; it may mean extra hours in the field; it may mean that only one man need stop for milking, where all must help now; it may mean that the milking can be done by young boys or older men who are not able to milk many cows by hand now, yet who can handle a De Laval just as well as any one; it may mean that the women folks won't have to help with the milking; and it may mean that twice as many cows can be handled with the same help. Any one of these advantages alone may easily pay for a De Laval in a year's time—they have done so for many.

Consider also that the regular and stimulating, yet soothing, action of the De Laval Milker usually increases milk production, and you have another reason for owning a De Laval. This increase varies, of course; but many De Laval owners state that it has increased their yield of milk ten per cent, and a few who have kept careful records have said it has increased their production as high as twenty per cent, with the same cows and care. The extra milk thus obtained by many De Laval owners has helped materially in paying for their milker.

Add to this the fact that it is possible to produce a higher quality of milk, which often commands more money, and you have another reason for owning a De Laval.

Why not join the army of satisfied De Laval Milker users—there are now over 10,000 in use—especially when you can buy a De Laval on such easy terms that it will pay for itself? See your De Laval Agent or write for full information.

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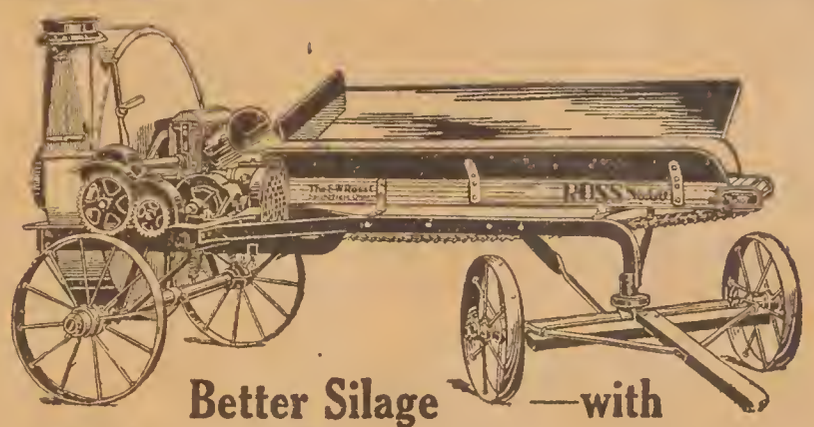

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Hatched from strong and vigorous northern raised flocks of English White Leghorns and Anconas bred for high egg production. We guarantee 100% live chicks on arrival. Postage PAID. Prices reasonable.

Instructive Catalog and prices free on request.

QUALITY HATCHERY, Box B, Zeeland, Mich.

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

TRY US AND BE SATISFIED
RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

Order June Chicks Now *at these Rock Bottom Prices*

	25 Chicks	50 Chicks	100 Chicks
S. C. W. Leghorns...	$3.25	$5.00	$10.00
Barred Rocks.....	4.00	7.00	14.00
R. I. Reds.....	4.00	7.00	14.00

500 chicks one-half cent per chick less. Every chick guaranteed from healthy, vigorous free range stock. Post paid. Safe delivery guaranteed.

BROOKSIDE POULTRY FARM
E. C. BROWN, Prop. SERGEANTSVILLE, N. J.

Chicks

BABY CHICKS
S. C. Rhode Island Reds, 13c each
Barred Plymouth Rocks, 12c each
S. C. White Leghorns, . 10c each
Mixed or Off Color, . . 8c each

These chicks are all hatched from free range stock. Safe delivery and satisfaction guaranteed. Descriptive booklet free. Chicks at the above prices will be delivered June and July.

W. A. LAUVER, McALISTERVILLE, PA., R. No. 2

BABY CHICKS

Hatched by the best system of incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 14c. each; White Wyandottes, 16c. each; White, Brown, Buff Leghorns, 12c. each; broilers, 8c. each. Pekin Ducklings, 30c. each. Safe delivery guaranteed by prepaid parcel post

NUNDA POULTRY FARM NUNDA, N. Y.

BABY CHICKS We know how to produce strong, husky, liveable Chicks. High quality, moderate in price. Bar. Rocks, $14; Reds, $16; Barron White Leghorns, $12; Brown Leghorns, $13; Anconas, $21, Assorted, $10. Prepaid, full count,

Hummer's Poultry Plant, Frenchtown, N. J., R. 1

TIFFANY'S SUPERIOR CHICKS THAT LIVE

Silver Laced Wyandottes, White and Barred Rocks and S. C. R. I. Reds
Pekin, Rouen and Indian Runner DUCKLINGS
ALDHAM POULTRY FARM, R. No. 33, Phoenixville, Pa.

QUALITY BABY CHICKS

Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

C. M. LORGENECKER, Box 40, Elizabethtown, Pa.

TOM BARRON S. C. W. LEGHORN

THE WORLD'S BEST LAYERS. BABY CHICKS.
DAVID M. HAMMOND, CORTLAND, N. Y.

TOM BARRON PEDIGREE STRAIN

S. C. W. Leghorns exclusively. Extra fine large June Chicks $15. Free delivery and satisfaction guaranteed.

FEEK'S WHITE LEGHORN FARM, CLYDE, NEW YORK

Free Catalog Land and Water Fowl, Chickens. Ducks, Geese, Turkeys, Guineas, Rabbits, Pigeons, Dogs, Stock and Eggs.

HOME STOCK FARM, SELLERSVILLE, PA.

DUX! Pekin and Runner Ducklings from selected and properly mated stock, limited supply left. Order now for spring delivery.

WAYNE DUCK FARM & HATCHERY, Clyde, N. Y.

Don't Throw Money Away

Financial, Investment and Service Items

Financial Department:—I would like to have information concerning the Eugenia Oil and Gas Company of which they are selling stocks in this section for $100?—J. L. H., Pennsylvania.

This particular stock is quoted 10 cents bid and 20 cents asked. That may give you a line on what the market thinks. We think it is a reckless throwing away of money to buy shares in this or any other oil promotion.

* * *

Financial Department:—Would you kindly investigate the Isoline Coal Company and let me know what to do? I invested $600 in the Minnessee Coal Company. (Letter attached) —A. H., Pennsylvania.

We think you would do well to charge your $600 to experience rather than to put any more money into a speculative venture of this kind.

BUY SOMETHING THAT HAS A MARKET

Financial Department:—The Home Correspondence School of Springfield, Mass. are selling a new issue 7 per cent sinking fund preferred stock at $25 a share. Are they good and safe investment to turn called Victory Loan bonds into, or would Pennsylvania R. R. selling at 47 be safer? Also kindly tell me what you think of the Eugene Christian Vitamin Food Company 8 per cent cumulative preferred stock, and the Parry Oil Company stock of Texas at $1.50 per share?—G. K. W., Pennsylvania.

Probably the Pennsylvania stock is the best of the investments you name, but even that is not suitable as a substitute for a Victory loan. Certainly our earnest advice is to avoid all oil stocks. At the best they are gambles and at the worst plain swindles. Also it is impossible to appraise preferred stock of a correspondence school or a food company without an analysis of earnings over a period of years which are not available to us. It is our opinion that your best course would be to reinvest in another Government bond. Assuming you will not take this advice because it is too conservative, we can recommend as a sound investment the preferred stock of the Jones & Laughlin Steel Company, which sells about 107¾, pays $7 a year in dividends and so yields about 6.4 per cent. There is a good market for this stock, so that if at any time you need to use your money you can always get it. Except for the Pennsylvania issue that is true of none of the stocks you speak of.

* * *

Financial Department:—As a policy holder of the Continental Life Insurance Company of Wilmington, Delaware. I have the option on fifteen shares of their capital stock at $20 per share. The company claims an actual book value of $24 per share for the stock at the present time. Do you consider the purchase of these shares of stock a safe investment?—G. J. K., Maryland.

Undoubtedly stock in the Continental Life Insurance has investment merit, but there is not a particularly good market for it. Recent quotations were $19 bid, offered at $22. The par value is $10. Dividends last year were at the rate of 12 per cent with 5 per cent extra or expressed in dollars, $1.75. This is about 6 per cent on your investment if you paid $20 per share.

SELLING A PATENT BY MAIL

"The first principle of successful selling by mail is a thorough knowledge of the product on the part of the sales correspondent. And so the best person to sell a new idea is the inventor who knows all about the good features of the invention," advises the Business Consultation Bureau of La Salle Extension University. In the words of a well-known patent attorney, "To set forth properly an invention to a manufacturer or a puchaser, it is essential to show:

1. Its advantages over well-known devices in the art to which it appertains.
2. Its cost, based if possible upon experience or taken from quotations given by reasonable parties for its production by the dozen, hundred, gross, or thousand, as the case may be.
3. The profits to manufacturers, wholesalers, and retailers.
4. The market to be supplied. This is determined in accordance with the nature of the invention, whether it is an invention useful to both sexes or to children alone."

The next step is to prepare a list of manufacturers and men interested in the industry within the scope of which the invention falls, and send these people a preliminary letter, to be followed by correspondence in accordance with the interest evoked.

A SMALL MATTER ADJUSTED

One subscriber wrote "thank you for attending to so small a matter," but we replied that no matter was too small to deserve our attention. After all, one dollar is sometimes as hard to get back as a hundred—but it is just as annoying to lose a small amount as a large one.

This time it was a mail-order house which had tangled its affairs badly. A refund check was sent—and the bank returned it as worthless. For a while it seemed as though there could be no redress for Mr. H. C. W. of New York, whose claim it was that we were handling. However, we found that another firm had taken over the liabilities of the defunct concern, and upon returning the old check, we received a money order for $3.95 in full settlement.

"I shall be glad to say all the good things I can for the Service Bureau" wrote Mr. W. in acknowledging the money.

REASONABLY GOOD

Financial Department:—Would you kindly state financial soundness of the Farmers Fund, Inc. of Rochester, N. Y. Is it a safe venture to loan them a few hundred dollars of a farmers hard earned dollars? They pay 5 per cent.—A. H. W., Binghamton, N. Y.

We think this is a good investment for a farmer.

* * *

Financial Department:—Can you tell me if the bonds of the North American Edison are a safe investment? Also can you tell me where the company is located?—Mrs. D. W. H., New York.

North American Edison 6 per cent bonds due 1952 are reasonably good investments. They are secured by deposit of stock of the Cleveland Electric Illuminating Company, and of the Union Electric Light & Power Company of St. Louis. We see no reason why you should not buy them.

ONLY FOR THE MAN WHO CAN RISK

Financial Department:—Would you advise me if the General Mortgage Financing Corporation is a safe investment?—(C. S. S., New York.

We do not recommend stock in any finance corporation for investors unable to take risks.

CLERKS ARE SOMETIMES CARELESS

One of the smaller mail-order houses had difficulty with their shipping department, and as a result a returned package was not credited by the receiving clerk. Mrs. M. A. T. of New York, who reported the case to us, was anxious to get her money back, and could seem to get no satisfaction from the firm. However, when the Service Bureau called the attention of the manager to the difficulty, a check for $3.79 in full payment was immediately forthcoming.

"CANADIAN AND AMERICAN OIL" DEAD

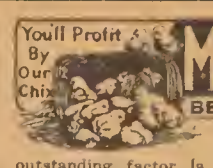
Financial Department:—Can you inform me about the Canadian and American Oil Company of Buffalo, N. Y.—(G. D. R., New York.

As far as we have been able to ascertain this oil company has been dead for four or five years.

RAILROAD HAS RIGHT

Many years ago a railroad was sold the right to cross a person's land. The railroad is not now in use. Can the owner of the adjoining land build a fence across the railroad to keep his cattle from going through as the railroad does not maintain fences along the side of it?—(A. L. I., New York.

Even though the railroad is not being used, the adjoining owners have no right to build a fence across it. By filing a petition in the usual manner adjoining owners may be able to compel the railroad to build and maintain a fence along the side of its road.



MOSS'S CHICKS
BEST IN THE WORLD

This season has proven to be the biggest season in our history. An outstanding factor is the great number of reorders from customers of past years, which speaks most convincingly of our High Quality and Superior Service.

You will receive the Healthiest, most robust chicks produced, for that is the kind we are famous for throughout the country. If you want fall layers order now, we are still in a position to ship immediately.

PURE BRED BABY CHICKS

Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
Leghorns - Buff and Brown - Barred Rocks	$4.50	$8.50	$17.00
S. C. & R. C. R. I. Reds	$4.75	$9.00	$18.00
White Wyandottes - White Rocks - Buff Rocks - Anconas	$5.00	$10.00	$19.00
Black Minorcas - Buff Orpingtons - White Orpingtons	$5.50	$10.50	$21.00
Mixed Chicks or Broilers	$3.75	$6.75	$13.00
Light Brahmas	$8.75	$16.50	$30.00
Famous MOSS'S Jersey Black Giants	$11.00	$21.00	$40.00

June, July and August chicks 1 cent lower. By 500 or 1,000 of one variety, special discount allowed.

Hatching Eggs and Stock.—Whether your order is large or small, it will have the same careful attention. *Catalogue on request.* Immediate Delivery

ANTHONY H. MOSS, Morris Plains, New Jersey

30,000 Chicks weekly

for June, July and August

June, July and Aug.

Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:

S. C. White and Brown Leghorns.....10c each
Barred Rocks.....12c each
S. C. R. I. Reds and S. C. Black Minorcas.14c each
R. C. White Wyandottes.....14c each
Broiler Chicks (Heavy Breeds).....9c each
Broiler Chicks (Light Breeds).....8c each

Lots of 500.....½ cent per chick less
Lots of 1000.....1 cent per chick less

100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.

FINE CATALOG FREE

THE KEYSTONE HATCHERY - Richfield, Pa.
Members I. B. C. Association

BABY CHICKS

Hatching every day in the week and every hour in the day. We are the world's largest producers.

THREE MILLION FOR 1923

Twelve popular breeds of best thorobred stock obtainable, moderately priced; also QUALITY chicks from heavy laying stock at small additional cost.

We deliver by parcel post anywhere East of the Rockies and guarantee 95% safe arrival.

Write Nearest Address, To-day, for Catalog—FREE

Smith's Standard Reg. U.S. Pat. Off.

THE SMITH STANDARD COMPANY

Boston, Mass., Dept. 67.....184 Friend Street
Philadelphia, Pa., Dept. 67.....833 Locust Street
Cleveland, Ohio.....1967 West 74th Street
Chicago, Ill., Dept. 67.....427 So. Dearborn Street
(Member International Baby Chick Association)

Flemington Famous Chicks!

We are going to offer as A SPECIAL! 25,000 Day-Olds, from our selected matings, for June Delivery

	Per 100	Per 50	Per 25
S. C. W. Leghorns..	$10.50	$5.50	$3.00
Barred Rocks.....	15.00	8.00	4.50
R. I. Reds.....	16.00	8.50	5.00

We guarantee 100% live arrival, full count. Parcel post paid. Order at once; don't delay and be disappointed at such low prices for SELECTED STOCK. Send P. O. Money Order or Check in full remittance.

FLEMINGTON POULTRY FARMS & HATCHERY
Box 422, FLEMINGTON, N. J.

Strickler's Quality Chicks

Hatches July 3-10-17-24-31

Large, heavy-type Barron English S. C. White Leghorns of superlative quality mated to pedigreed cockerels. Each pen headed by Lady Storrs' Pen Cockerel (Dams' records of 240 to 271 eggs each in pullet year). Highest quality vigorous chicks by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. $10 per 100, $48 per 500, $95 per 1,000. Also husky pure-bred Barred Rock chicks, $12 per 100, $57 per 500.

LEONARD F. STRICKLER, Sheridan, Pa.

Hampton's Black Leghorn Chicks

Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.

A. E. HAMPTON, Box A Pittstown, N. J.

CHIX Bar. Rocks, 11c; Reds, 12c; Wh. Leghorns, 9c; Mixed, 8c. 100% arrival guaranteed. Order from adv or circular free. TWIN HATCHERY, McALISTERVILLE, PA.

LARGE STOCK fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Collies, Pigeons, Chicks, Stock. Eggs, low: catalog. PIONEER FARMS, Telford, Pennsylvania.

The Brown Mouse—*By Herbert Quick*

CON BONNER, who came to see the opening, voiced the sentiments of the older people when he condemned the school as disorderly. To be sure, there were more pupils enrolled than had ever entered on a first day in the whole history of the school, and it was hard to accommodate them all. But the director's criticism was leveled against the free-and-easy air of the children. Most of them had brought seed corn and a good-sized corn show was on view. There was much argument as to the merits of the various entries. Instead of a language lesson from the text-book, Jim had given them an exercise based on an examination of the ears of corn.

The number exercises of the little chaps had been worked out with ears and kernels of corn. One class in arithmetic calculated the percentage of inferior kernels at tip and butt to the full-sized grains in the middle of the ear.

All the time, Jim Irwin, awkward and uncouth, clad in his none-too-good Sunday suit and trying to hide the fact that he was pretty badly frightened, passed among them, getting them enrolled, setting them to work, wasting much time and laboring like a heavyladen barge in a seaway.

"That feller'll never do," said Bonner to Bronson next day. "Looks like a tramp in the schoolroom."

"Wearin' his best, I guess," said Bronson.

"Half the kids call him 'Jim,'" said Bonner.

"That's all right with me," replied Bronson.

"The room was as noisy as a caucus," was Bonner's next indictment, "and the flure was all over corn like a hog-pin."

"Oh! I don't suppose he can get away with it," assented Bronson disgustedly, "but that boy of mine is as tickled as a colt with the whole thing. Says he's goin' reg'lar this winter."

"That's because Jim don't keep no order," said Bonner. "He lets Newt do as he dam pleases."

"First time he's ever pleased to do anything but deviltry," protested Bronson. "Oh, I suppose Jim'll fall down, and we'll have to fire him—but I wish we could git a *good* teacher that would git hold of Newt the way he seems to!"

CHAPTER V

THE PROMOTION OF JENNIE

IF Jennie Woodruff was the cause of Jim Irwin's sudden irruption into the educational field by her scoffing "Humph!" at the idea of a farm-hand's ever being able to marry, she also gave him the opportunity to knock down the driver of the big motor-car, and perceptibly elevate himself in the opinion of the neighborhood.

The fat man who had said "Cut it out" to his driver, was Mr. Charles Dilly, a business man in the village at the extreme opposite corner of the county. His choice of the Woodruff District as a place for motoring had a secret explanation. He came to see Colonel Woodruff and Jennie. Mr. Dilly was a candidate for county treasurer, and wished to be nominated at the approaching county convention. In his part of the county lived the county superintendent—a candidate for renomination. He was just a plain garden or field county superintendent of schools, no better and no worse than the general political run of them, but he had local pride enlisted in his cause, and was a good politician.

Mr. Dilly was in the Woodruff District to build a backfire. He expected to use Jennie Woodruff to light it withal. That is, while denying that he wished to make any deal or trade—every candidate in every convention always says that—he wished to say to Miss Woodruff and her father, that if Miss Woodruff would permit her name to be used for the office of county superintendent of schools, a goodly group of delegates would be glad to reciprocate any favors Mr. Charles J. Dilly might receive in the way of votes for county treasurer with ballots for Miss Jennie Woodruff for superintendent of schools.

Mr. Dilly never inquired as to Miss Woodruff's abilities as an educator. That would have been eccentric. Miss Woodruff never asked herself if she knew anything about rural education which especially fitted her for the task; for was she not a popular and successful teacher—and was not that enough? Mr. Dilly merely asked himself if Miss Woodruff's name could command strength enough to eliminate the embarrassing candidate in his part of the county and leave the field to himself. Miss Woodruff asked herself whether the work would not give her a pleasanter life than did teaching, a better salary, and more chances to settle herself in life. So are the officials chosen who supervise and control the education of the farm children of America.

This secret mission to effect a political trade accounted for Mr. Dilly's desire that his driver should "cut out" the controversy with Newton Bronson, and the personal encounter with Jim Irwin—and it may account for Jim's easy victory in his first and only physical encounter. An office seeker could scarcely afford to let his friend or employee lick a member of a farmers' road gang. It certainly explains the fact that when Jim Irwin started home from putting out his team the day after his first call on the Simms family, Jennie was waiting at the gate to be congratulated on her nomination.

"I congratulate you," said Jim.

"Thanks," said Jennie, extending her hand.

"I hope you're elected," Jim went on, holding the hand; "but there's no doubt of that."

"They say not," replied Jennie; "but father says I must go about and let the people see me. He believes in working just as if we didn't have a big majority for the ticket."

"A woman has an advantage of a man in such a contest," said Jim; "she can work just as hard as he can, and at the same time profit by the fact that it's supposed she can't."

"I need all the advantage I possess," said Jennie, "and all the votes. Say a word for me when on your pastoral rounds."

"All right," said Jim, "what shall I say you'll do for the schools?"

"Why," said Jennie, rather perplexed, "I'll be fair in my examinations of teachers, try to keep the unfit teachers out of the schools, visit schools as often as I can, and—why, what does any good superintendent do?"

"I never heard of a good county superintendent," said Jim.

"Never heard of one—why, Jim Irwin!"

"I DON'T believe there is any such thing," persisted Jim, "and if you do no more than you say, you'll be off the same piece as the rest. Your system won't give us any better schools than we have—of the old sort—and we need a new kind."

"Oh, Jim, Jim! Dreaming as of yore! Why can't you be practical! What do you mean by a new kind of rural school?"

"A truly-rural rural school," said Jim.

"I can't pronounce it," smiled Jennie, "to say nothing of understanding it. What would your tralalooral rural school do?"

"It would be correlated with rural life," said Jim.

"How?"

"It would get education out of the things the farmers and farmers' wives are interested in as a part of their lives."

"What, for instance?"

"Dairying, for instance, in this district; and soil management; and corn-growing; and farm manual training for boys; and sewing, cooking and housekeeping for the girls—and caring for babies!"

Jennie looked serious, after smothering a laugh.

"Jim," said she, "you're going to have a hard enough time to succeed in the Woodruff school, if you confine yourself to methods that have been tested, and found good."

"But the old methods," urged Jim, "have been tested and found bad. Shall I keep to them?"

"They have made the American people what they are," said Jennie. "Don't be unpatriotic, Jim."

"They have educated our farm children for the cities," said Jim. "This county is losing population—and it's the best county in the world."

"Pessimism never wins," said Jennie.

"Neither does blindness," answered Jim. "It is losing the farms their dwellers, and swelling the cities with a proletariat."

For some time, now, Jim had ceased to hold Jennie's hand; and their sweetheart days had never seemed farther away.

"Jim," said Jennie, "I may be elected to a position in which I shall be obliged to pass on your acts as teacher—in an official way, I mean. I hope they will be justifiable."

Jim smiled his slowest and saddest smile.

"If they're not, I'll not ask you to condone them," said he. "But first, they must be justifiable to me, Jennie."

"Good night," said Jennie curtly, and left him.

JENNIE, I am obliged to admit, gave scant attention to the new career upon which her old sweetheart seemed to be entering. She was in politics, and was playing the game as became the daughter of a local politician. The reader must not by this term get the impression that Colonel Woodruff was a man of the grafting tricky sort of which we are prone to think when the term is used. The West has been ruled by just such men as he, and the West has done rather well, all things considered. Colonel Albert Woodruff went south with the army as a corporal in 1861, and came back a lieutenant. His title of colonel was conferred by appointment as a member of the staff of the governor, long years ago, when he was county auditor. He was not a rich man, but a well-to-do farmer, whose wife did her own work much of the time, not because the colonel could not afford to hire "help," but for the reason that "hired girls" were hard to get.

The colonel, having seen the triumph of his side in the great war, was inclined to think that all reform had ceased, and was a political standpatter—a very honest and sincere one. Moreover, he was influential enough so that when Mr. Cummins or Mr. Dolliver came into the county on political errands, Colonel Woodruff had always been called into conference. He was of the old New England type, believed very much in heredity, very much in the theory that whatever is is right, in so far as it has secured money or power.

He believed in education, provided it did not unsettle things. He had a good deal of Latin and some Greek, and lived on a farm rather than in a fine house in the county seat because of his lack of financial ability. As a matter of fact, he had been too strictly scrupulous to do the things—such as dealing in lands belonging to eastern speculators who were not advised as to their values, speculating in county warrants, buying up tax titles with county money, and the like—by which his fellow-politicians who held office in the early years of the county had founded their fortunes. A very respectable honest, American tory was the colonel, fond of his political sway, and rather soured by the fact that it was passing from him.

Such being her family history, Jennie was something of a politician herself. She was in no way surprised when approached by party managers on the subject of accepting the nomination for county superintendent of schools. Colonel Woodruff could deliver some delegates to his daughter, though he rather shied at the proposal at first, but on thinking it over, warmed somewhat to the notion of having a Woodruff on the county pay-roll once more.

CHAPTER VI

JIM TALKS THE WEATHER COLD

"GOING to the rally, James?" Jim yearned for a long evening in his attic den with his cheap literature. But as the district schoolmaster he felt some sense of duty as to exhibiting an interest in public affairs.

"I guess I'll have to go, mother," he replied regretfully. "I want to see Mr. Woodruff about borrowing his Babcock milk tester, and I'll go that way. I guess I'll go on to the meeting."

His mother urged his overcoat upon him in vain—for Jim's overcoat was distinctly a bad one, while his best suit, now worn every day as a concession to his scholastic position, still looked passably well after several weeks of schoolroom duty. It seemed more logical to assume that the weather was milder than it really was, on that sharp October evening, and appear at his best, albeit rather aware of the cold. Jennie was at home, and he was likely to see and be seen of her.

"You can borrow that tester," said the colonel, "and the cows that go with it, if you can use 'em. They ain't earning their keep here. But how does the milk tester fit into the curriculum of the school? A decoration?"

"We want to make a few tests of the cows in the neighborhood," answered Jim. "Just another of my fool notions."

"All right," said the colonel. "Take it along. Going to the speakin'?"

"Certainly, he's going," said Jennie, entering. "This is my meeting, Jim."

"Surely, I'm going," assented Jim. "And I think I'll run along."

"I wish we had room for you in the car," said the colonel. "But I'm going around by Bronson's to pick up the speaker, and I'll have a chuck-up load."

"Not so much of a load as you think," said Jennie. "I'm going with Jim. The walk will do me good."

ANY candidate warms to her voting population just before election; but Jennie had a special kindness for Jim. He was no longer a farm-hand. The fact that he was coming to be a center of disturbance in the district, and that she quite failed to understand how his eccentric behavior could be harmonized with those principles of teaching which she had imbibed at the State normal school in itself lifted him nearer to equality with her. A public nuisance is really more respectable than a nonentity.

She gave Jim a thrill as she passed through the gate that he opened for her. White moonlight on her white furs suggested purity, exaltation, the essence of womanhood—things far finer in the woman of twenty-seven than the glamour thrown over him by the schoolgirl of sixteen.

Jim gave her no thrill; for he looked gaunt and angular in his skimpy, ready-made suit, too short in legs and sleeves, and too thin for the season. Yet, as they walked along, Jim grew upon her. He strode on with immense strides, made slow to accommodate her shorter steps, and embarrassing her by his entire absence of effort to keep step. For all that, he lifted his face to the stars, and he kept silence, save for certain fragments of his thoughts, in dropping which he assumed that she, like himself, was filled with the grandeur of the sparkling sky, its vast moon, plowing like an astronomical liner through the cloudlets of a wool-pack.

They stopped and looked. Jim laid his hard hands on the shoulders of her white fur collarette.

"What's the use of political meet-

(*Continued on page* 496)

WHAT HAS HAPPENED?

WHEN Jennie Woodruff said "Humph!" Jim Irwin decided that he would be something besides her father's field hand after all. He had often expressed his opinion of what a rural school should be, and through a fluke is elected to the vacant position of school-teacher and must make good his theories.

Among Jim's loyal adherents is 17-year old Newton Bronson, whose truancy and pool-playing are making him a local problem. Jim fights for Newton in a roadside argument and as a result Mr. Bronson nominates him for the position.

A Bureau Not Used for Storing Clothes

Another Talk About Women and Their Business

By A MERE MAN

WELL I got away with it! I wrote an article for American Agriculturist in the April 14th issue in which I made some rather emphatic statements about women and the American home. I am still alive, which is probably due to the fact that I did not sign my name to the article. If you did not read it, look up your April 14th issue and read the article on the second page entitled, "Is the American Home Slipping?" and you will understand the risk that I took. I understand from the editor of American Agriculturist that his household editor has been going around with a gun looking for me ever since, but although I am only a mere man, I am a brave one at that, so I am now taking both my life and my pen in hand to talk about the women some more.

The truth that I tried to bring out in the first article is that something is needed to dignify homemaking the world's most important profession. I believe that the women themselves have started a movement to add such dignity to homemaking, and that movement is known as the home bureau. I am sorry to say that although the home bureau has been active in doing a great work now for a number of years, there are thousands of women who do not know what it is. They are in much the same situation as was the farmer whom a county farm bureau man visited some years ago when the farm bureau was new. After visiting with the farmer a few moments the farm bureau manager asked him if he ever used the farm bureau. The farmer shifted his tobacco to the other side of his mouth, and said that he would would never have one of those darned new fan'-dangled machines on his farm!

I don't know just how the women themselves define the home bureau, but I would say it is an organized movement of women to help themselves improve and dignify homemaking, the greatest and most important profession in the world.

There is grave need for such a movement. Once, making the home was the only trade of women; now it is only one out of hundreds of trades or professions in which women engage, and in the minds of a large number of young women, it ranks least in importance. I think that too many modern women think of homemaking as a task of drudgery involving only the washing of dishes, scrubbing of floors, and the cooking of food for mere man to eat.

I am not one of the many narrow-minded male specimens, however, who are constantly harping on the scheme that woman's only place is in the home. A lot more of them would gladly be there if there were more young men of gumption and courage enough to be willing to support a home and to offer a nice girl the partnership job in establishing this fundamental unit of society. But as long as the men hold off from marriage, thousands of girls must live, and to live many of them must work at business trades and professions. As a result, we fear that thousands of our women have come to regard homemaking as old-fashioned, and unworthy of consideration as a real life work. If a majority of women reach such a conclusion and keep it permanently, then indeed is our house of civilization built upon the sands and the winds of adversity will surely destroy us, for it goes almost without saying that successful homes are absolutely necessary to any nation and to any civilization. So this is where the home bureaus come in—to bring back to women, knowledge and confidence in their biggest job.

The home bureau organization is similar to that of the farm bureau. A woman agent, usually called a home demonstration agent, is established in the county. She is required to have a long course of training in the many diverse matters that touch the home. The home bureau in the county is financed by national and state funds administered through the state colleges of agriculture, by local funds appropriated by the county and by some subscriptions of the women members who belong to the local organization.

State colleges, through their home economics, schools or departments, largely direct the work of the home bureau agent, but she is also much influenced by the advice and counsel of the women of her county, organized in the county association.

The home bureau county associations are organized with an executive committee, president and secretary. The county associations are federated in many States into State home bureau federations and now the American Farm Bureau Federation has made arrangements to bring all of these State home bureau federations together nationally as a part of the American Farm Bureau.

In New York State the college end of the home bureau work is directed by Miss Martha Van Rensselaer and Miss Flora Rose, heads of the home economics department of the New York State College of Agriculture, who are assisted by able assistant State leaders of home demonstration agents. Miss Van Rensselaer has done such notable work that she was recently chosen by a committee of the National League of Women Voters as one of the twelve most famous women in the United States. Miss Rose is equally well known; and Mrs. A. E. Brigden, president of the State Federation, has been a power for good in placing the organized women back of movements for the improvement of country life and homes.

New York State has a home bureau in each of 34 counties and in 3 cities, with an active membership of more than 30,000 women in over 900 communities. Eleven specialists in nutrition, foods, clothing, home management, home hygiene and household furnishings are engaged in active work with home demonstration agents and the county home bureaus in carrying on projects and home demonstrations in different phases of these subjects.

For example, the nutrition work aims to assist the homemaker in planning three well-balanced meals a day with the special object of promoting vigorous growth and development of children. These projects show how such common ailments as underweight, overweight, indigestion, headaches and colds may be relieved through proper diet. They also aim to establish good food habits and other health practices among children, through cooperation with the schools.

Of course there are women who will say, "I don't need any of these new notions to tell me how to boil water without burning it." There may be those who do not need to talk over and study their business, but I would just as soon be excused from eating regularly at the table of women who think they are so good that there is nothing more to be learned.

(*Continued on page* 499)

A Home Bureau Committee Meeting

More and more women are finding problems of home and community worthy of organized thought and action

A Page For the Cook, Be She Expert or Beginner

Sugarless Canning—Simple Recipes For Different Meals—Kate Sweetser on "Making Friends"

STRAWBERRIES, late this year because of the prolonged cool weather, are due to "glut the market," according to authorities who watch the picking and shipping all over the country. Whether you raise your berries or buy them, early June should find them plentiful—almost too plentiful in fact.

Put them up! Don't lose the opportunity, for this berry is especially delicious when preserved.

Sugar? Yes it's high—but here's a tip. Can the berries in their own juice and add the sugar when they are opened. By that time the new crop will be along, and prices will be lower. During the war, the government recommended sugarless canning and this seems a good time to revive it.

Minna C. Denton, who tried out many delightful combinations in the Home Economics Experiment Kitchen, has given us the following directions for canning not only strawberries but other fruits as they come along.

Expert Advice on Sugarless Canning

Apples, somewhat under ripe, gooseberries, blueberries, raspberries, and other berries, and sweet varieties of plums and cherries may be canned in their own juices. In fact, the flavor of many of these products, sweetened just before using, is even finer and more like that of the fresh fruit, than when they are canned with large quantities of sugar or in a heavy syrup. Any of the following ways may be used:

Method A.—This is an easy and simple method, especially when handling soft, juicy fruit, such as berries. Pack the washed fruit into the jar as usual, and without adding liquid of any kind. Process for the usual period, or perhaps 4 or 5 minutes longer. The juice will cook out of the fruit during the processing period, and the flavor will be richer than if water or even syrup be added.

Method B.—Select the ripest of the fruits, clean and trim as usual, cook slowly with no water added, or at least with very little. When the fruit goes to pieces, drain the juice through a jelly bag; bring this juice to the boil; and use it instead of boiling syrup to fill the jars in which the firmer fruit is packed. Then process the jars as in Method A. If desired, the dripped juice may be concentrated to make it richer.

Method C.—Prepare fruit as usual, and without adding any sugar, cook it in an ordinary pan or kettle, to a sauce of the consistency desired for table use. Have ready jars, lids and rubbers, covered with boiling water. Remove each jar as needed; pour in the boiling sauce and seal at once. Do not wipe or touch the inside of the jar or lid.

This method is not so uniformly successful as is Method A, because it is difficult to prevent bacteria and molds from getting into the fruit and the jars while they are being filled and sealed. Many housewives, however, can acid fruits successfully this way.

Some fruits canned without sugar absorb the sweetening more thoroughly and evenly if reheated when the sweetening is added. This is especially true of very sour fruits or those in large pieces.

Using Syrup Instead of Sugar

Honey, maple syrup, corn sugar, molasses, malt syrup or other syrups sold under various trade names, may be substituted for part or all of the granulated sugar ordinarily used in canning. None of these sweeteners will give exactly the same results as does granulated sugar; on the other hand, some of them may prove quite acceptable.

When using a sweetening agent which you have never before tried, begin by substituting only enough to replace half of the sugar generally used. That is, use ½ cup of granulated sugar and ½ cup of other sweetener for each cup of granulated sugar called for by the original recipe.

NOVEL RECIPES FOR RHUBARB

When fresh rhubarb comes around, every member of the family rejoices. "Just plain rhubarb" becomes a rare delicacy. Mrs. E. A. Edelblute gives a recipe for rhubarb pie which is a little out of the ordinary, and Mrs. Carmen D. Welch sends us the other rhubarb recipes, which we pass on with hearty recommendation that our readers try them.

Rhubarb Custard Pie

One cup scalded rhubarb; 1 cup sugar; 1 egg; 1 tablespoon flour; 5 tablespoons water. Flavor with lemon, cook until thick and pour into a baked crust. Cover with meringue.

Rhubarb Cobbler

Cut the rhubarb without peeling, into small lengths; and place in a baking dish; sugar it well; and pour over it a batter made of 1 cup full sour milk, a little water in which you have dissolved a half teaspoonful soda, with enough flour to make a batter of medium thickness. Bake 30 minutes, and serve cold with sugar and cream.

Rhubarb Jam

Slice six lemons in thin slices and cut up six pounds rhubarb in small lengths. Put the lemon and rhubarb in a bowl, and cover with 6 cups sugar. Let it stand overnight, then add 1-3 cup water, and boil 1 hour without stirring. When it is quite thick, pour into jelly glasses and seal when cool.

Rhubarb Marmalade

Cut 2 pounds rhubarb in small pieces and add 1 cup boiling water, to which ½ pound of nut meats have been added. Cook the above mixture till soft, then add 2 cups sugar and 2 lemons cut in thin slices. Cook till the syrup thickens then remove from fire and pour into jelly glasses.

SPRING SALADS ARE IN ORDER

From Mrs. E. A. Edelblute, come several recipes that are particularly appetizing at this time of the year.

Fruit Salad

Equal parts of diced apples, sliced oranges and bananas, and 1 cup nut meats. Prepare one package of lemon jello according to directions and add a little more sugar. When cooled, combine with the fruit mixture. Serve with whipped cream.

Spring Salad

Slice young onions and radishes. Shred a quantity of lettuce. Make a dressing consisting of one egg; ½ cup cream; 3 tablespoons vinegar (if vinegar is very strong, dilute it) salt to taste and sugar if you prefer it. Let cook until mixture coats the spoon. Cool and mix with vegetables.

Spring brings with it an abundance of dandelions, mustard, horseradish, dock, etc., which may be used in cooking thus providing us with delicious and nourishing food. In the days gone by, I disliked the lowly greens but my sister-in-law told me how she cooked them. They are fine and I want to pass the recipe on.

Greens

Pick, assort, and thoroughly wash the greens. Put them into a kettle and scald, pouring off the first water. Put them on again and cook in salt water until tender. Scald ½ cup vinegar weakened and sweetened to taste, to which a tablespoon of meat drippings has been added. Pour over the greens boiling hot and over all, slice a hard boiled egg.

CAN YOU MAKE SALAD WITH SCISSORS?

MABEL FERN MITCHELL

How many of us realize the value of a pair of scissors kept in the kitchen? Often we have an old rusty pair, one point broken off, dull as a hoe, but I mean a nice clean pair, the cutting-clear-to-the-point kind. If you do not have an extra pair of this kind, I certainly advise you to get one. I bought a pair with some extra egg money and one of the first things I did with the scissors was to cut up a chicken I wanted to fricassee. The chicken was so easily unjointed, and I cut right through the back. As a result I'll never use a knife again.

Did you ever shred your lettuce with the scissors? Do this just before you serve the lettuce so the juice will not run out. It will make an excellent garnish or foundation for salads. All farmers' wives make Dutch or Cottage Cheese. Next time make some into balls, and place on the shredded lettuce leaves. Try cutting carrots into various shapes, with the scissors, and serve with French dressing, made in the proportions of one tablespoon vinegar, thoroughly blended with three tablespoons of olive oil, and seasoned to taste with salt, pepper and onion juice.

One of the prettiest salads ever served was of red and green peppers cut in shapes of holly leaves and berries with the scissors. Serve with mayonnaise.

If one is skilled in the use of scissors, one can cut cakes into various shapes for parties. Use the scissors to cut citron, raisins, etc., for cakes and salads. Very thin sandwiches also may be cut into fancy shapes with scissors. Cut marshmallows for salad or cake frosting with scissors.

Make some old fashioned molasses candy next winter, and use the scissors to cut into pieces of various shapes. Like all other tools in use, they must be kept sharp and need to have keen, straight edges, close meeting points. Put them away clean each time.

FRIENDS—HOW TO MAKE AND KEEP THEM.

KATE DICKINSON SWEETSER

MONEY can buy an automobile, a string of pearls, a fur coat, a house and lot, but there is one thing it cannot buy, and that is a friend. There is only one way to get friends, and that is a very old and a very simple way—by being friendly.

Sitting at home alone and wishing for them never gave them to anybody. Feeling a little bit superior to one's companions and showing it, doesn't add to one's chances of making them, nor does avoiding Jeanette because you don't like her manner, or Elsie because she is so silly with the boys, or crossing the street for fear of having to walk downtown with garrulous Mrs. Brown or dull Miss Jones, or avoiding George Smith for fear he will tell you again about that wonderful trip to Niagara he once took. If you do these things and then complain about being left alone, and say enviously of Mary Ellis, "Oh yes, she always was lucky—She has more friends than anybody in town"—you simply are not looking at the matter straight. The thing to do is—find out Mary Ellis' way of making friends, for as surely as she has them, so surely has she worked to attract and hold them. They never drop into one's lap by magic.

My mother used to say "Don't bother over how many people like you, the point is, how many do *you* like"—and that is what many persons fail to see. It is entirely "up to you." In the first place, be that unusual thing, a good listener. It helps a lot. Have some interest in other people's affairs even if they do bore you a bit. Probably yours bore them. Be generous with your sympathy, your appreciation, your loyalty, have a lot of "pep" in your comradeships, and watch for results! You will get them! But when you have made friends, don't forget that they are human, that there is bound to come some moment especially in an intimate friendship when your ideals are shattered, you are disappointed, irritated, your friend seems unworthy of your devotion. That is the time to switch from the normal fifty-fifty basis on which all friendships should be built, to a seventy-five—twenty-five basis, or perhaps for a moment of need to a hundred-to-nothing basis of love and trust. You will never regret it. Such an investment of loyalty pays big dividends of appreciation, and there is no wind of rumor or flood of disappointment that can destroy a comradeship with such a foundation.

Make friends whenever and wherever you can, by being friendly. Show that you like and like to be liked. And bind your own particular friends to you with unbreakable cords of mutual understanding and appreciation. Then you will never need to wonder why, like Mary Ellis, you have so many friends, for you will know the reason. "He who hath friends must show himself friendly"—That is all there is to it.

A NEW FRIEND FOR A. A. READERS

Kate Sweetser, whose first contribution to the American Agriculturist appears on this page, is well known not only as a writer of charming fiction, but as one who understands girls and has helped hundreds with their problems. Perhaps you will find in her advice on friendship some clue to the secret of her popularity with girls who know her personally as well as those who know her only through the written page.

A USEFUL DEVICE

Another handy little device is the potato ricer. Aside from making mashed potatoes so much nicer for the table it makes them smoother for bread making. It also mashes vegetables for cream soups, pumpkin and sweet potatoes, for pies, and last but not least makes vegetables smooth and fine for baby.—(D. W., Maryland.

The Brown Mouse

(*Continued from page* 494)

ings," said Jim, "when you and I can stand here and think our way out, even beyond the limits of our Universe?"

"A wonderful journey," said she, not quite understanding his mood, but very respectful to it.

"And together," said Jim. "I'd like to go on a long, long journey with you to-night, Jennie, to make up for the years since we went anywhere together."

"And we shouldn't have come together to-night," said Jennie getting back to earth, "if I hadn't exercised my leap-year privilege."

She slipped her arm in his, and they went on in a rather intimate way.

"I'm not to blame, Jennie," said he. "You know that at any time I'd have given anything—anything—"

"And even now," said Jennie, taking advantage of his depleted stock of words, "while we roam beyond the Milky Way, we aren't getting any votes for me for county superintendent."

Jim said nothing. He was quite, quite reestablished on the earth.

"Don't you want me to be elected, Jim?"

Jim seemed to ponder this for some time—a period of taking the matter under advisement which caused Jennie to drop his arm and busy herself with her skirts.

"Yes," said Jim, at last; "of course I do."

Nothing more was said until they reached the schoolhouse door.

"Well," said Jennie rather indignantly, "I'm glad there are plenty of voters who are more enthusiastic about me than you seem to be!"

(*Continued next week*)

Oil Stove Care and Economies

Mrs. Leon H. Lewis Gives Hints for this Summer Labor-Saver

IF you are to secure the maximum amount of heat from your oil stove and operate it safely and economically, you must observe certain rules for its care.

Keep the burners as clean as your husband does the carburator of his car. Once or twice during the season remove the plug at the end of the pipe, drain off the oil and rinse thoroughly with clean kerosene. While doing this, have the stove tilted a little so that all of the sediment will run out.

During the night, when the stove is not in use, considerable oil will work up on to the burner, so before lighting in the morning, always wipe off the burner, and with the wick turned just to the edge of the burner, wipe off the charred edge. If the stove bothers about "running up," undoubtedly the small holes in the burner have become clogged so that the flame does not get sufficient air, and you will feel repaid if you remove the burners and boil them up as you do your lamp burners.

Always Keep it Clean

When food boils over, clean as soon as possible, for when it has had a chance to burn on, it is almost impossible to get it off without removing some of the paint. Then if you keep a folded paper on the shelf under the burners, you will find it very easy to keep that part of the stove clean. Above all, have a special time each day when you fill the tank and while you are about it fill it full. Keep a tin box handy into which drop your burned matches, but be sure they are out before you drop them into it.

I have heard many women say that they simply could not bake with an oil-stove. If you will secure some sheet asbestos and cut a piece to fit the bottom of the oven and another to place on top, and, over the latter put a straw-filled pillow or even several layers of newspaper, the heat will be much more evenly distributed, and your cookies and cakes will no longer burn on the bottom before they are done on top. This summer I mean to have a one-burner insulated oven, which, according to the New York State Bulletin on Fireless Cookers, has certain advantages over the fireless cooker. This bulletin also gives directions for lining your old oven with asbestos.

Save Heat by a Little Planning

It takes planning to get dinner on an oil stove and have everything done at once and on time. While preparing your vegetables, have a teakettle of water heating. Then when the potatoes and the other vegetables are nicely boiling, set the basin containing the vegetable into the potato kettle, using it as a double boiler. If the kettle is large and the basin is small, it will do no harm if it sets directly on the potatoes. Then if you have a flat cover the teakettle can be set on top of this. Thus one burner does the work of three. If you are baking a dessert, plan to bake the meat or a cake for supper, or to make some kind of hot bread.

Whenever you have a fire in your range, make good use of it. Drop cookies and most kinds of cake can be stirred up the evening before baking (cover to prevent drying over the top) and all kinds of fresh fruit pies are just as good if they are made the day before they are baked. By having these all ready before hand, you can do more baking at once without interfering with your other work. Also much of the work of baking can be done in a cool kitchen. Be sure to heat all the water that you can then and plan to use it. On a hot day, a pail of water set in the sun, will be heated sufficiently, in a short time for many uses.

When ironing, the irons may be kept piping hot by inverting an old frying pan or sauce pan over them.

To Lengthen the Life of Wicks

If you are not afraid of soiled hands, you can double the life of the wicks in the following manner: Remove wick, and with an old knife or screwdriver, loosen the tin clips which hold the wick to the frame at the bottom and sew a double strip of outing flannel to the lower edge of wick. With a pair of pincers, fasten wick back and return to burner. I have tried joining two wicks, but find the outing flannel much easier to sew on and it works quite as well.

Kerosene makes an ideal summer fuel and if the stove is properly cared for, it will give many years of satisfactory service.

A RUG-CLEANING HELP

ALICE MARGARET ASHTON

Electricity has revolutionized many of our old-time cleaning methods. But not all country housewives are yet privileged to clean their rugs with an electric cleaner.

When rugs must be cleaned with a beater a discarded bed-spring is one of the greatest helps imaginable. Place the springs on the grass, lay the rug over it and beat as usual. Being raised somewhat from the ground places the rug in a better position to receive the blows of the beater. And the dislodged dust instead of settling back into the rug falls to the ground beneath.

The springs make a fine, clean place for dusting and sunning mattresses.

Oftentimes the old coil-springs were hinged in the center of the frame so as to fold in half. One of this kind is easiest to handle and takes up less storage room in the shed. But at most it is not very heavy or troublesome and is well worth the effort required to place it when a number of rugs require a thorough cleaning.

ON YOUR WATCH

What season of the year do you note on your watch? Spring.

What parts of the human body? Face and hands.

What indicates many? Numbers.

What sign of bondage? Chain.

What is most remorseless that you find there? Time.

What will most interest the physician? Case.

What the average person does six days of the week? Works.

What part of a flower? Stem.

What belong to us? Hours.

What is found that can never be first? Second.

What that infests cattle? Ticks.

What sign of honesty do many watches have? Open face.

What is found that we look for at the waxworks? Figures.

What expressing courage? (Metal) —Mettle.

SUITING THE THIN AND THE STOUT FIGURE

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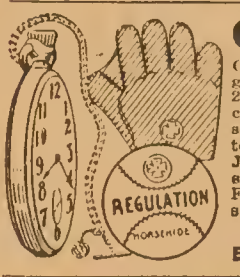

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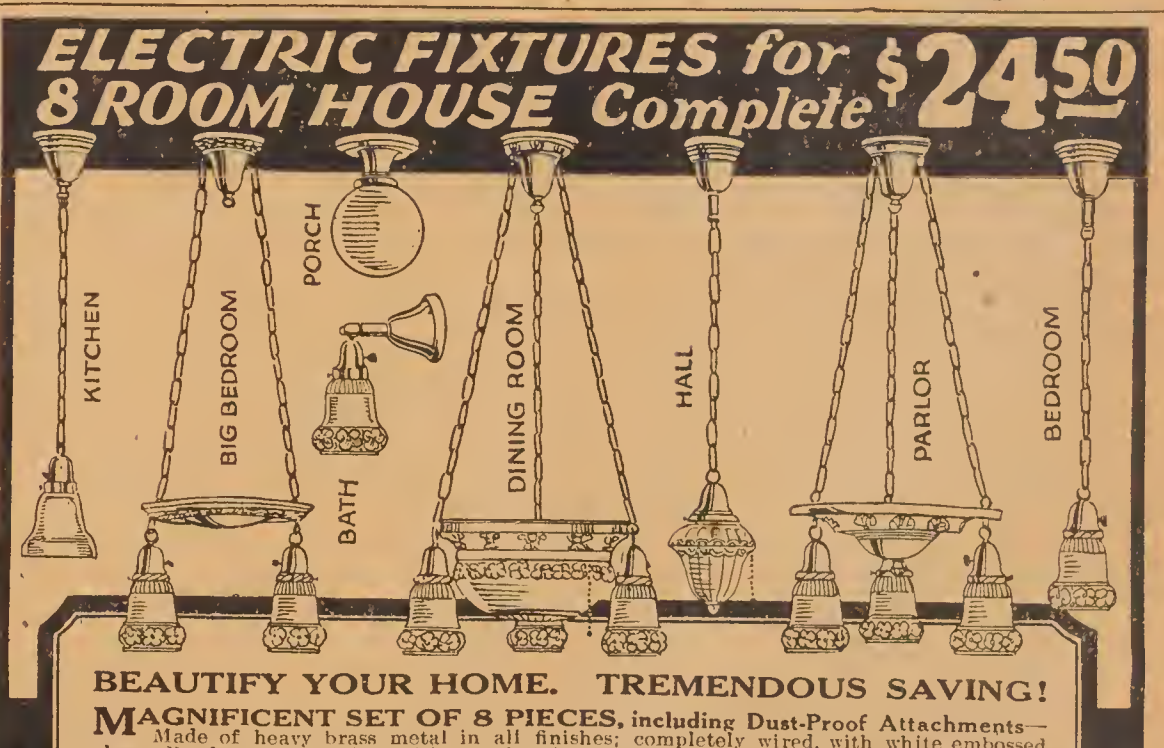

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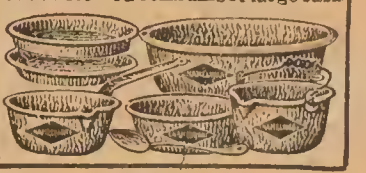

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SHIPPING POINT INSPECTION

HERSCHEL H. JONES

NO activity of government market bureaus has greater possibilities for improving the marketing of farm products than the official inspection of perishable vegetables and fruits at point-of-origin. In all sections where production is specialized and carlot shipments are made to distant markets the problem of grading, standardizing and establishing a definite basis of trading without actual inspection by the distant buyer, is fundamental. There is no estimating the losses both city market buyers and country shippers have suffered, either through ignorance or sharp practice because of lack of a system of certification as to the quality and condition of shipments of perishables.

Just as grading is the first step in better marketing, so shipping point inspection and terminal market inspection are essential to the enforcement of grading.

In cooperation with the United States Bureau of Agricultural Economics, the New York State Department of Farms and Markets last year made a commendable start toward establishing shipping point inspection service in New York State, particularly with reference to potatoes. Inspectors selected by the Department of Farms and Markets, were trained by specialists from the Federal Bureau, and issued Federal certificates as to the grade, quality and condition of each car of potatoes they inspected. The work was organized and directed by H. D. Phillips of the State Department. A nominal fee was charged per car inspected.

When an inspected car went forward it carried a copy of the certificate inside and a copy went to the buyer with the bill of lading. The shipper held a copy. Rejections because of declining market were eliminated, readjustments in price because quality was not up to specifications were reduced to a minimum, potatoes could be sold f. o. b. shipping point with the same security as a standardized factory product.

Twenty-two States are now carrying out some such plan of shipping point inspection in cooperation with the Federal government, many of them much more extensively than in New York. New Jersey is one of these. Western States have far outstripped the East in such service to their producers. It is hoped that in the coming season the work begun last year in New York may be greatly enlarged.

STRAWBERRY SUPPLY HEAVY

Strawberries are now arriving in the New York market in very large quantities. On June 1, receipts for one day were one and one-half million quarts. They sold at 6 to 10c per quart, with some fancy at 12 to 15c.

Long Island fresh vegetables are considerably retarded by the late season. The first bunched kale and white turnips from Long Island appeared in the farmers' markets last week.

The market for old crop State onions is practically dead. A shipment of 5,500 cwt. bags of onions arrived from Egypt on June 1, and sold at $3.50 to $3.65.

OLD POTATOES YIELD TO NEW

Out of 434 cars shipped on May 29 from all potato producing sections, from Maine to Florida and from Washington to Texas, 361 cars rolled from South Carolina. Possibly one-third of these cars were destined for New York City market.

Due to poor quality and careless grading, prices at New York piers show a wide range. Floridas, best, sold for $7.50 bbl., poor, $6.50 and wasty, considerably lower. South Carolinas sold from $6 to $5.50.

The demand for old potatoes is slowly disappearing and if prices on the new go lower within the next few weeks, there will be a very few cars of the old marketed. States are moving to the trade at prices from $2.25 to $2.75 per 150-lb. sack. One of the largest New York jobbers of Northern grown potatoes will close his office Saturday for the summer.

HAY TRADE QUIET

There was very little activity in the hay market last week and very few changes in prices. Receipts were fairly light at all points. Good No. 2 timothy in large bales will bring $25 per ton, but most sales range from $23 to $24. One car of fancy large baled timothy sold at $27.

BUTTER DECLINES STEADILY

There was generally a more conservative feeling reported all over the country among butter dealers last week. Although production has not increased very strongly yet, it is growing steadily. Wholesale prices fell 2 @ 2¼c from the previous week. Creamery extras (92 score) were quoted at 38½ @ 38¾c on May 31, compared with 41 @ 41½c lb., the week previous, and 34 @ 34½c lb., on the same date last year.

Future buying of June butter last week was all at 39c lb.

CHEESE MARKET STILL FIRM

The cheese market continued firm last week. State whole milk flats held average run were quoted May 31 at 28 to 28¼c per lb; flats, fresh, average run 23½c; twins, fresh, average run 23¼ @ 23½c; State skims, flats, fresh, specials 18c per lb., fresh choice 15 @ 16c; undergrades 10 @ 14c.

BROILERS BRING GOOD PRICES

The usual active demand for broilers preceding Decoration Day was repeated this year, and those who got their broilers in early enough realized very good prices. Most of the colored broilers sold at 55c, but later the market settled down to 50c. There was a good demand for larger size Leghorn broilers. On Monday, before Decoration Day, they went as high as 55c but later settled down to 40 @ 45c. Some late receipts had to be carried over the holiday and sold out slowly.

Express fowls sold slowly and brought little more than freight shipments of fowls from the West.

Rabbits, live, were in light supply and sold at 32 to 33c lb.

EGG SUPPLIES EXCEED DEMAND

Nearby white eggs continued in heavy supply last week. There was a considerable surplus, even of fancy Jersey hennery whites that went into cold storage at prices lower than quotations. The miscellaneous small express shipments were of very irregular quality and only a small portion could be sold in regular channels for immediate consumption at the range of prices quoted for average extras. The bulk of the nearby receipts sold at 29 to 32c per dozen. Undergrades went below this. The top price for New Jersey hennery whites, extras, was 38 @ 40c.

Storage packed firsts from the West were freely offered at 27½ to 28c. Speculative buyers are afraid to put more eggs into storage now except on a lower level of prices, and the general condition of the market is very weak. Most of the eggs now going to storage are put there by the shippers themselves to avoid sacrificing at lower prices.

DRESSED CALVES WEAKER

The demand for country dressed calves was not very active last week, and the tendency was toward lower prices on all grades. Dressed calves, veals, sold at the following prices per lb. on May 31, choice, 17c; prime, 14 @ 16c; good, 11 @ 13c; common, 8 @ 10c.

Dressed lambs were in light supply toward the end of last week and firm for fancy large with occasional sales as high as $11 per carcass, but $10 the top price for average best, poor to good ranged from $3 to $4 per carcass.

LIVE CALVES IN DEMAND

Although receipts of live calves were fairly heavy at New York last week, the buying was quite active and there was practically no accumulation of stock. Toward the end of the week prices advanced 50c with general sales of veals at $11 to 13.50 per cwt. Live lambs were also in good demand. In the middle of last week several cars of the best Southern spring lambs brought $16 @ 16.50 per cwt., but after the holiday the bulk of sales were $15 @ $16.50, with one car of choice Virginia lambs selling at $17.

LIMITED DEMAND FOR FEEDS

The Buffalo feed market continued dull and inactive last week. There were declines in meal feeds, oil meal and cottonseed meal during the week, supplies were liberal. Quotations May 31 on carlots Buffalo rate basis 100-lb. sacks per ton were:

Gluten feed, $41.05; cottonseed meal, $44.55; oil meal, $40; standard spring bran, $31; hard winter bran, $31.50; choice flour middlings, $36.50; standard spring middlings, $34; white hominy, $36.55. No. 2 yellow corn per bushel, 91½c; No. 2 white oats, per bushel, 49c.

CASH GRAIN QUOTATIONS

Cash grain quotations June 1, at New York were as follows:

Wheat, No. 2 red—$1.46½; No. 2 hard winter, $1.31; No. 2 mixed durum $1.20½; corn, No. 2 yellow, 99c; No. 2 mixed, 98½c; No. 2 white, 99c; oats, No. 2 white, 54½ @ 55c; No. 3 white, 53½c; rye, 83½c.

Chicago: No. 2 hard winter, $1.15½; corn, No. 2 white, 80 @ 80¾c; No. 2 yellow, 80¾ @ 81½c; oats, No. 2 white, 43½ @ 44½c; No. 3 white, 42¾ @ 43½c; barley, 67 @ 69c.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on May 31:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	38@40	......	......
Other hennery whites, extras	37@38	......	......
Extra firsts	31@33	29@30	29½
Firsts	29@30	......	27½
Gathered, whites, first to extra firsts	29@32	......	......
Lower grades	27½@28	......	......
Hennery browns, extras	32@34	......	......
Gathered browns and mixed colors, extras	29@30	28@29	......
Pullets No. 1	27@28	......	......
Butter (cents per pound)			
Creamery (salted) high score	39½	42@43	......
Extra (92 score)	38½@39	40@41	40
State dairy (salted), finest	38@38½	38@39	......
Good to prime	37@37½	31@37	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$22@24	$20@21	$21@22
Timothy No. 3	19@21	......	19@20
Timothy Sample	11@16	......	......
Fancy light clover mixed	24@25	......	21@22
Alfalfa, second cutting	27@28	......	......
Oat straw No. 1	10	......	15½@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	26@27	26@28	29@30
Fowls, leghorns and poor	......	24@25	......
Chickens, leghorns	......	......	26@27
Roosters	15	17@18	15@17
Live Stock (cents per pound)			
Calves, good to medium	9½@11¾	12@12½	......
Bulls, common to good	4@4¾	4½@6½	......
Lambs, common to good	10@14	14½@15	......
Sheep, common to good ewes	3½@5½	5@7½	......
Hogs, Yorkers	8@8¼	8	......

Rearing Vigorous Pullets

(*Continued from page 490*)

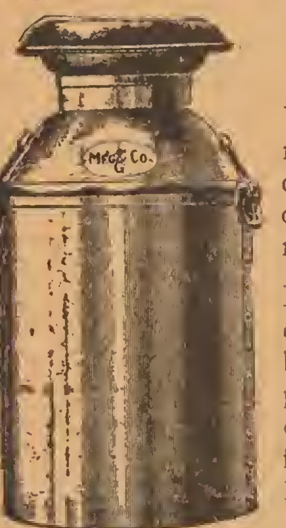
are doing as well as they should. The following table will supply the necessary data.

GROWTH OF PULLETS EXPRESSED IN POUNDS AND WEEKS

Lbs.	Leghorns	Rocks	Wyandottes	Reds
1	9	8	8	9
2	15	12	12	14
3	25	15	16	19
4		19	20	25

In conclusion it might be said that the success of a poultryman depends on his ability to raise strong, vigorous pullets. There is not any most important period, but rather it is necessary to see that from the time the chick is hatched until it is housed that its growth is constant and uniform. If this is done the cares of winter will become less heavy and the eggs will come when the price pays.

MILK CANS



20-30-40 qt. sizes

We sell only makes of high quality — yet our prices are reasonable.

Progressive dairymen have bought supplies and equipment from us since 1889.

J. S. BIESECKER
Creamery, Dairy and Dairy Barn Equipment
59 Murray St. New York City

They STAY

Built in every detail for long life and tight-fitting stability. Heavy, sound staves, creosoted; oversized threads on heavy steel hoops. Close-fitting, safe-like doors. Handsome red-cedar roof. Write for booklet and special proposition for early buyers.

CREAMERY PACKAGE MFG. CO.
350 West St., Rutland, Vt.

GREEN MOUNTAIN SILOS

$1,000 Gets 200-Acre Farm

Income $4,000; Growing Crops; 8 Cows, team, tools, implements included if taken soon; any farmer would be proud of it; on improved road, close R.R. town, city markets; 100 acres machine-worked fields, part river bottomland; alfalfa does well; 40-cow pasture, woven wire fences; estimated 300 cords wood, timber; variety fruit; splendid two-story 7-room house, running water; 70-ft. concrete basement barn, stable, garage, piggery, poultry house. To settle affairs $5,800 takes all, only $1,000 needed. Details and photo page 58 Illus. Catalog Bargains—many States Copy free. STROUT FARM AGENCY, 150R NASSAU ST., N. Y. CITY.

WANTED

If you have HAY and STRAW to sell write us for quotations and free Booklet "How to market Hay and Straw."

JOHN E. MURRAY, Inc.
1658 BROADWAY, NEW YORK CITY, N.Y.

SHIP YOUR EGGS
WHITE AND BROWN
To R. BRENNER & SONS
Bonded Commission Merchants
358 Greenwich St., New York City

SHIP to the right house
M. ROTH & CO.
321 Greenwich St.—N. Y. C.
Write for shipping Tags
EGGS

A Bureau Not Used For Storing Clothes

(*Continued from page* 495)

Right here is where I get into trouble again! In my younger days I had considerable experience working out by the day and by the month. I have eaten at literally hundreds of farmers' tables. I can testify from personal experience that the cooking on many of these tables was the best that I have ever seen anywhere. But I must add that there were some where the cooking would ruin the digestion of a cast-iron bulldog.

Farm families have at hand unlimited supplies of milk, and with a little forethought, could have fresh fruits and vegetables in season and canned fruits all the year. With modern preservative methods, they can have canned chicken, beef and pork. Yet I have worked in families day after day, week in and week out, on heavy manual labor from ten to fourteen hours a day, and lived on a deadly diet consisting mainly of salt pork, milk gravy, bread and potatoes. I say again, that farm cooking can be the best in the world, and usually is, but even the best can be made better, and there is a lot of country cooking where there is plenty of room for improvement.

The home bureau does work in clothing where the aim is to teach the home maker the principles of clothing the family in accordance with health standards, good taste and economy. These include information on the wise buying of materials, patterns and ready-made clothing; tests for quality of material, and methods of garment-making which will reduce the amount of time and labor expended and the amount of material needed.

In home management projects, the aim is to put homes on a better business basis, with minimum expenditure of time, money and effort, and maximum returns in comfort, health and satisfaction.

Home hygiene and sanitation is an important part of the work, as are also projects in household furnishings and decoration. These include the study of how to recognize quality and how to select furnishings and decorations economically. One of the most important parts of the homemaking work is assistance to parents in helping in child-training. This helps to develop the child's mind and character, and train him in good citizenship.

Through the county organizations, State Federation and the home bureau agents themselves, much work is done in supporting movements like those for better rural schools, more recreation in rural communities, better county fairs, community and county libraries and improvement of the rural church.

This is just a brief glimpse of the splendid job which the home bureaus are doing. We have seen enough of it to wish that every woman was a member of the local organization and that such organization existed in every county in the land.

Perhaps this summary of what the home bureau is trying to do bears out my statement that through organization the women are showing themselves what a big job the profession of homemaking really is. Whether a woman gets her training in the School of Home Economics or in the School of Hard Knocks, if she is to be a successful homemaker she must have more training and ability along more different lines than is needed in any other occupation in which modern woman is now engaged.

Therefore, when the home bureau has brought women to this realization and appreciation of the world's fundamental job, it has justified a thousand times the cost and hard work and sacrifice that the members and leaders of the home economics movement are making.

What Is Needed in Every Farm Home

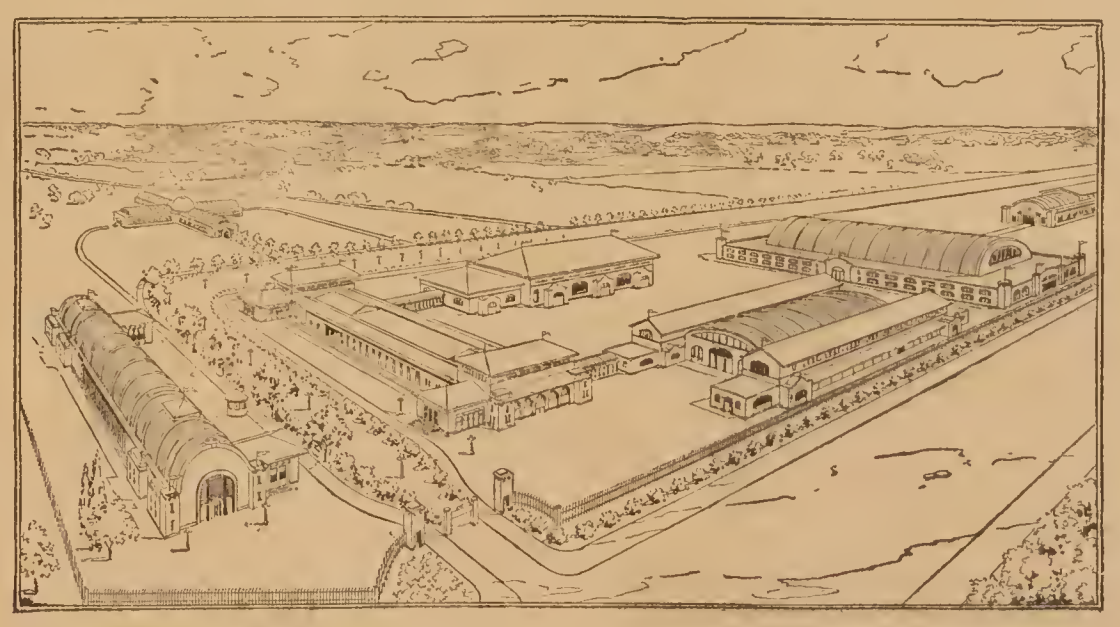
(*Continued from page* 485)

Look about you a bit. How many things did you purchase in the last year that were one-half as necessary as the bathtub, considering it from a health standpoint? And when health is gone, what else counts? It need not be one of the higher-priced ones. The folding tub is not so lasting, but serves the purpose well, and is cheap. Deny yourself of a few luxuries and one is yours. Is it not true that hundreds of families spend the price of a cheaper tub in needless luxuries and notions in a month's time, then speak of not being able to afford it? The better grade of tubs can now be obtained equipped with heater and built to fold and be wheeled into a corner and also into another room.

The family of medium circumstances can have one of these when it is impossible to have a well-equipped bathroom in the house. Yet we can enumerate hundreds of homes in this section who do not even think of a bathtub.

Yet the very instant any symptom flares up the doctor gets a job. Well and good. That is their business, but I honestly believe that in many cases a prescription calling for a bathtub in the home would do more good in the end than the usual prescription of drugs. A vast amount of ills come from unsanitary conditions.

Without proper bathing health wanes. —W. E. F., Baltic, Ohio.



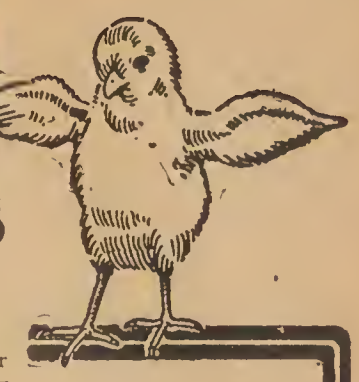
A sketch showing the arrangement of buildings on the New York State Fair Grounds, which are to be used by the National Dairy Exposition next October

JUST within the main entrance gates to the left is the big Manufacturers' Exhibit Building which will contain the United States Department of Agriculture's panoramic exhibit of the development of American dairying, and exhibits of dairy equipment and supplies. Across the plaza on the right of the entrance gates is the State Institutions Building which will also contain dairy factory machinery and supply exhibits. Beyond it, connected by a colonnade, is the Dairy Building wherein will be shown the butter and cheese exhibits, foreign exhibits of dairy products and equipment, human welfare exhibits, and where demonstrations by Boy and Girl Clubs and domestic science teachers will be conducted.

Behind the State Institutions Building is the new cattle barn wherein will be housed more than 1,000 of America's finest dairy cattle. Leading on from the barn is shown the Coliseum now under construction and which is to be dedicated by the Exposition.

HILLPOT

QUALITY CHICKS



Act early—get yours SURE at these

EXTRA-ORDINARY REDUCED PRICES

Think of the saving it means to get good sturdy chicks for as little as this, especially when they're **Hillpot Quality—the Highest Quality.**

	25	50	100	500	1000
White, Black or Brown Leghorns	$3.50	$6.50	$12.00	$57.50	$110.00
Barred Rocks	3.75	7.25	14.00	67.50	130.00
White Rocks and R. I. Reds	4.50	8.50	16.00	77.50	150.00
Wh. Wyand., Blk. Minorcas & Anconas	4.75	9.25	18.00	- - -	- - -
Mixed Broiler Chicks	3.00	5.25	10.00	47.50	- - -
SPECIAL MATINGS					
Wh. Leghorns, Mating A	$5.50	$10.25	$20.00	$95.00	- - -
Wh. Leghorns, Mating B	4.00	8.00	15.00	72.50	140.00
Barred Rocks	4.75	9.25	18.00	85.00	- - -

Heavy ordering is sure. ACT PROMPTLY—protect yourself. Send check, money order or registered letter for your chicks at once. Safe arrival of full count guaranteed anywhere in U. S. A. east of Mississippi River.

W. F. HILLPOT, Box 29, Frenchtown, N. J.

Member International Baby Chick Association — Life Member American Poultry Association

JERSEY BLACK GIANTS

Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

Also R. I. Reds and Barred Rocks, White Wyandottes and White Leghorns at Attractive Prices

Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

PICTURESQUE POULTRY FARM, Box 71, Trenton Junction, New Jersey

BUY HUBER'S RELIABLE CHICKS

Special Summer Prices *Our 14th Year*

Don't fail to take advantage of these prices, for they will include our number one grade chicks. Our stock is bred for quality and heavy egg production. They will be money-makers. Will ship any number of chicks from 25 on up.

S. C. White and Brown Leghorns and odds and ends at 10 cents. S. C. Anconas at 11 cents. R. C. and S. C. Reds and Barred Rocks, 13 cents. S. C. Buff Orpingtons and White Wyandottes at 15 cents. S. C. Black Minorcas at 14 cents. S. C. Buff Minorcas at 20 cents.

40,000 Chicks Every Week. Order Direct from This Ad. Attractive Catalog Free.

HUBER'S RELIABLE HATCHERY, North High St., FOSTORIA, OHIO

ATHENEON CHICKS REDUCED PRICES

12,000 per week hatched from healthy, vigorous, pure-bred, culled farm flocks—the kind that are easy to raise—live, lay, and pay. Our customers re-order. There is a reason.

VARIETIES Prices on—	50	100	300	500
S. C. WHITE, S. AND R. C. BROWN LEGHORNS	$5.50	$10	$30	$48
BARRED ROCKS, ANCONAS, BLACK LEGHORNS	6.50	12	35	58
WHITE ROCKS, R. C. AND S. C. REDS	7.00	13	38	63
WHITE AND SILVER WYANDOTTES, BLACK MINORCAS	8.00	15	44	73

DDDS AND ENDS—Heavy Breeds, 10 cents; Light Breeds, 9 cents each.

July prices the same. Mail your order now direct from this ad. Send check, money order, or registered letter. No shipments C. O. D. Full count and live delivery guaranteed. Parcel post prepaid. Reference: Athens National Bank.

ATHENS CHICK HATCHERY, Box Y, ATHENS, OHIO

100,000 Chicks for June Delivery

Our flocks are bred for heavy egg production and our JUNE CHICKS will make excellent winter layers.

VARIETIES Prices on—	50	100	500	1,000
WHITE AND BROWN LEGHORNS	$5.00	$10.00	$47.50	$90.00
BARRED ROCKS, REDS, ANCONAS	6.00	12.00	57.50	110.00
WHITE ROCKS, BLACK MINORCAS	6.50	13.00	62.50	120.00

MIXED CHICKS, ALL VARIETIES, PURE-BRED—same price as Leghorns POSTPAID.

Full live delivery guaranteed. Orders filled in rotation. Season ends July 1st. Order right from this ad. Save time. Reference: HURON CO. BANK. You take no chances. NORWALK CHICK HATCHERY, Box B6, NORWALK, OHIO. Only 16 hours from New York City. Chicks will reach you quickly and safely.

100,000 JUNE CHICKS

Hatched under my personal supervision from personally inspected flocks of heavy-laying, pure-bred fowls.

VARIETIES Prices on	100	500
WHITE BROWN, & BUFF LEGHORNS	$10	$47.50
BARRED ROCKS, REDS, ANCONAS	12	57.50
WHITE & BUFF ROCKS, WH. WYANDOTTES, MINORCAS	13	62.50
WHITE & BUFF ORPINGTONS, SILVER WYANDOTTES	14	67.50
MIXED CHICKS FOR BROILERS	$9 PER 100 STRAIGHT	

POSTPAID and full live delivery guaranteed. Get your order in quickly right from this advertisement with full remittance. Bank Reference. Free Catalog.

H. B. TIPPIN, Box F, Findlay, Ohio (Member I. B. C. A.)—Only 18 hours from New York City

CHICKS $8.50 per 100 and Up

POSTPAID TO YOUR DOOR AND FULL LIVE COUNT GUARANTEED

VARIETIES Prices on—	50	100	500
WHITE, BROWN, AND BUFF LEGHORNS	$5.00	$9.50	$45.00
BARRED ROCKS, S. C. REDS, ANCONAS, MINORCAS	6.50	12.00	57.50
WHITE ROCKS, WHITE WYANDOTTES	7.00	13.00	62.50
BROILERS, MIXED CHICKS	5.00	9.00	42.50

BUFF MINORCAS — 25, $5.50; 50, $10; 100, $20.

Hatched in the best modern incubators from good, vigorous, pure-bred, heavy-laying flocks on free range. Carefully selected and packed to go safely. Order right from this ad with full remittance. Save time. No catalog. Reference: Citizens' Savings Bank. You take no chance. Instructions for raising late Chicks with each order. THE EAGLE NEST HATCHERY, Box F, UPPER SANDUSKY, OHIO. Only 18 hours from New York City.

JUNE "BRED TO LAY" BABY CHICKS

PRICES S. C. W., Br. Leg. and S. C. Mottled Anconas. June 4 to June 25 delivery. 50 Chicks, $5.00; 100 Chicks, $10.00; 500, $45.00; 1,000, $90.00; Mixed, 100, $7.00.

The best utility Chicks that money can buy, hatched from large deep bodied birds with large lopped combs. Wonderful winter layers and winners at leading Shows. Our modern 65-acre Poultry Farm and our method of business enables us to save you money on real high quality chicks. We ship Postpaid and guarantee 100% live delivery and absolute satisfaction. Order at once. Can make immediate delivery. Also hundreds of 8-wk. pullets ready for shipment. Cat. free. Reference.

TOWNLINE POULTRY FARM BOX 28 ZEELAND R-1, MICH.

150,000 JUNE CHICKS { $9 Per 100 and Up

Good, strong, vigorous Chicks from pure-bred, selected, heavy-laying hens on free range and well cared for, insuring vitality of the Chicks.

Varieties Prices on	50	100	500	1000
White, Brown and Buff Leghorns	$5.00	$9.50	$45.00	$90.00
Barred Rocks, Reds, Anconas	6.50	12.00	58.00	115.00
White Rocks, White Wyandottes, Buff Orpingtons	7.00	13.00	63.00	125.00
Silver Wyandottes	7.50	14.00	70.00	- -

Postpaid to your door. 100% live arrival guaranteed. Place your orders quickly, direct from this advertisement, with full remittance. Best Bank Reference. You are not taking any chances. Circular Free.

MODERN HATCHERY, Box D, MT. BLANCHARD, OHIO

Only 18 hours from New York City. Chicks will reach you quickly.

Dad's Secretary!

NO longer are business letters, purchase orders, and farm reports classed among the chores. Ever since Dad got the Underwood Portable, Mary has been taking a load of trouble off his shoulders.

Dad just "thinks out loud", and Mary's quick wits and nimble fingers do the rest. The Portable enables her to put words and figures on paper in a way that is rapid, clear, and businesslike. And she keeps on file a carbon copy of everything she writes.

Dad's reputation as a good business man has grown as a result of all his letters being typewritten. Business men instinctively respect others who are up-to-date and business-like in their methods.

No one needs to go to business college to learn to operate the Underwood Portable. The knack is easily acquired, with the aid of the instruction booklet that comes with every machine. Young folks who gain at home a knowledge of typewriting have a valuable asset whatever their life work may be.

UNDERWOOD TYPEWRITER CO., INC., Underwood Building, New York City

UNDERWOOD PORTABLE

PRICE, $50
in the United States

The Portable is obtainable at Underwood offices in all principal cities, or direct by mail.

Cased:
Weight 9⅞ lbs.
Height 4⅞ inches

Send for
"Giving Wings to Words"
an illustrated booklet fully describing the features of the Underwood Standard Portable

"The Machine You Will Eventually Carry"

UNDERWOOD TYPEWRITER CO., Inc., Underwood Bldg., N. Y.

☐ Send Underwood Standard Portable, fully guaranteed, to address below. Enclosed find price, $50.00.

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A A

AMERICAN AGRICULTURIST

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"Oh, for boyhood's time of June
Crowding years in one brief moon"

The World's Greatest Shopping Places

Marketing Fruits and Vegetables

An A. A. Radio Talk Broadcast on June 13 at 6:50 P. M. from WEAF

By HERSCHEL H. JONES

ONCE more the round of seasons begins to bring nearby producing sections into consideration in the big New York wholesale market. In the farmers' public markets the variety and quantity of new green vegetables is steadily increasing. Southern New Jersey has been sending lettuce, asparagus, beets and other new vegetables to New York for several weeks, and New Jersey is now vying with Maryland as a source of supply of strawberries.

Among the vegetables now coming from Long Island and other nearby trucking sections are asparagus, beet tops, carrots, dill, kohlrabi, leeks, lettuce, onions, parsley, radishes, rhubarb, romaine, sour grass, spinach, Brussel sprouts, turnips, and hothouse cauliflower and tomatoes.

Hudson River strawberries made their first appearance of the season last week. In spite of a glut in the supply of strawberries and a very weak market, these first Hudson River berries brought 15 to 25c per quart, wholesale. Rhubarb and a few early vegetables are also coming now from the Hudson Valley.

Orange County, New York, began shipping spinach last week. The first shipment was sold at 50c per 5 peck hamper.

Gradually the centers of production shift northward from mid-winter to fall. It is fascinating to watch the never-ending procession of fresh-grown things in the New York wholesale market. The one thing that large growers and marketing organizations aim for, especially in the distant States, is to have their product in the market when supplies from elsewhere are light. So keen and so nation-wide is the competition of perishable farm products, that in New York and other large sections the people hardly know when a thing is in season. With few exceptions, the man who makes most money out of shipping to the New York market is the one who gets his produce there when the other fellow doesn't have any.

With such a commodity as watermelons, of course, weather is the biggest factor in making a market. Very little changes in temperature or humidity may make a huge difference in appetite of ten million people. The recent hot spell, for example, caused an increased demand for fresh salad vegetables, that reflected itself in higher prices and demand for many carloads more per day. Cucumbers, the best of which are now coming from South Carolina, went up to $6 and $7 per bushel crate, wholesale. If one-third of the ten million people supplied through the New York market suddenly decide to eat salad instead of heavier vegetables or meats, the sense of this increased demand passes quickly back from retailer to jobber, and from jobber to wholesaler.

It is the influence of such factors that cause demand to fluctuate that is often not understood by the man in the country. Supply is only part of what makes a market. And the most expert salesmen in the produce business, gauge all the factors that make the market chiefly by instinct or feeling. Strange as it may seem there is little science to the game of selling perishables as it is now practiced.

From the producers' standpoint, however, here are some suggestions to keep in mind in marketing this season's fruits and vegetables:

(1) Efficient transportation and marketing are as essential to your success as efficient production.

(2) Grading for absolute uniformity in size, quality, freshness and freedom from disease always pays. Keep the culls at home, or sell them as such, and you'll make more money out of the crop. The United States Department of Agriculture has standard grades for a long list of farm products which are furnished free on application.

(3) Method of packing and the package itself have a lot to do with selling anything. Buyers buy by their eyes. It pays to have the package the trade wants and to pack as the market requires.

(4) If shipping to New York wholesale market, arrange your shipments so as to get them in before midnight, or not later than 2 A. M. so as to be there when the market is at its best.

(5) Utilize the public information at your disposal through government reports, newspapers, and our own market page to keep in close touch with market conditions.

What I have said has necessarily been very general, but whenever you want specific information on your own marketing problem, write to the American Agriculturist and we'll get it for you.

Can You Tell What Teazles Are Used For?

Little is Known of This Farm Enterprise Centered Around Skaneateles, N. Y.

By E. C. WEATHERBY

YOUR editor has asked me to tell you about teazles, probably because I used to, as county agent, work with farmers around Skaneateles, which is the center of the teazle production in the United States.

Teazle burrs are used by manufacturers of woolens to bring up the nap. To date no invention of man has succeeded in providing a better means than nature provided to do this job, particularly on the finer worsteds and broadcloth.

In order to have this story relate the experience of a teazle grower, I went to our G. L. F. Agent, George M. Talcott who with his partner Mr. Feeley runs the stone mill at Skaneateles. It was in the feed store that Mr. Talcott gave me his experiences in growing teazles which he characterizes as not making him rich by any means, but growing teazles had saved his neck several times.

Mr. Talcott always farmed it until recently when he moved to town. He still operates several farms with his tenants. Teazles, with him, fitted into the rotation of general crops such as wheat, corn, oats, cabbage, potatoes and hay which are grown around Skaneateles.

Introduced in 1820

It was William Snooks, an Englishman, who in 1820 started the teazle industry in Skaneateles by bringing seeds from England and planting them in what proved to be soil well adapted to their growth. Since that time the teazle industry continually developed until a few years before the war when prices were so low that there was a considerable falling off in teazle planting.

George Godfrey proved that Skaneateles was best adapted to the growing of teazles when he, as an experienced hand at the game, went to Oregon some 25 years ago and tried to establish the industry there. It is reported that he raised a fair quality of teazles but could not market them because of the lack of local marketing facilities and high transportation costs in getting the commodity to market.

Two Years to Get a Crop

As nearly as I could find out, it is the cumulative experience gained after many years growing teazles plus the marketing facilities that are available at Skaneateles that make this town at the foot of the beautiful Skaneateles Lake famous as the center of the teazle industry.

As far as soil conditions are concerned, there are many theories. We do know that Skaneateles is in the limestone section, that the water from the lake is considered the purest, being used to supply the city of Syracuse. Oats in the section stand up till harvest time, while in other sections they go down badly.

Teazle seeds have to be planted early in the spring in rows three feet apart and covered with about a half inch of soil. As they come along, they are thinned out to from four to five inches apart in the row. At corn planting time a hill of corn is put in the row about every six feet. Corn is planted in order to have a break that will catch the snow in the winter and keep the teazle plant well covered, as winterkilling is one of the most severe handicaps to the industry. The cornstalks are left standing, the corn being pulled in the western style. During the second season beginning early in the spring, shallow cultivation and occasional hoeing is necessary, as it is during this season that the plant throws out the shoots that bear the burrs.

After wheat is cut and in the barn, the harvesting of teazles begins. This is usually between July 20 and August 10. Experienced cutters, using a hooked knife, cut the ripe teazles about five inches below the burr. The patch is cut over three times and the cuttings are about a week apart.

The teazles as cut are piled in large two bushel baskets which are dumped in hay racks with tight bottoms which stand at the end of the rows. These hay racks are used to draw the teazles to the barn.

Harvested After Wheat

Another reason why teazles are not generally grown is that there is special equipment necessary in curing them. The barn has to have ventilation something like a tobacco drying house and the teazles are piled on slate bottomed racks. These racks are made with loose 2″ x 3″ pieces laid about three inches apart. The teazles are piled on these to a depth of two feet.

Two or three days after being placed on the drying racks these bottom pieces are turned on edge and in a couple more days every other piece is pulled out. This provides for a better circulation of air.

Once the burrs are properly cured, they are let down on the barn floor and stored until winter when they are delivered to the buyer's warehouse in the village. They are drawn without grading in the large hay

(*Continued on page* 507)

American Agriculturist

THE FARM PAPER THAT PRINTS THE FARM NEWS

"Agriculture is the Most Healthful, Most Useful and Most Noble Employment of Man"—*Washington*

Reg. U. S. Pat. Off. Established 1842

Volume 111 | For the Week Ending June 16, 1923 | Number 24

The World's Greatest Shopping Places

Where Are Displayed Everything From Diamonds to Doughnuts

ONCE upon a time there was a man who had to spend considerable time riding from his home to his place of business. Every time that he opened his newspaper or his magazine he found an advertisement urging him to try a certain brand of breakfast food. When he looked up from his paper, he found the same advertisement staring at him from a sign on the side of the car, and it was again impressed upon his vision from big billboards when he looked out of the car windows. Convinced at last that there must be something to it, he bought a a package and took it home. The next morning, he tried to eat it and did not like it. Then he offered it to his dog, and the dog also refused it.

After another week of reading the same advertisements constantly whether he wanted to or not, he concluded that something must have been the matter with him in his first trial of this breakfast food; so he tried it again, liked it a little better but was not over-enthusiastic about it, and offered the biggest part of it again to his dog, who still refused to eat it, and growled menacingly when the man persisted.

Back and forth, to and from the city, for another week, he continued constantly to absorb unconsciously some of the advertised statements about this particular breakfast food until he again concluded that he must have failed the first two times to give the stuff a fair trial. And for the third time, he had it served for a morning meal. This time he found it excellent and thereafter demanded it regularly.

Thinking that the dog may have been mistaken too, he again tried to get the dog to eat it, but the dog not only turned it down but bit the man in the leg for offering it to him. He then came to the conclusion that the only difference between him and the dog was that he could read advertisements and the dog could not!

So accustomed are we to seeing advertising in our papers, magazines and on billboards, that few of us have any idea of the tremendous indirect or subconscious influence of this method of selling ideas and merchandise. .

A few days ago a hardware merchant in a small town was visited by a caller who wanted to get some first hand information about the results of advertising.

"Do you keep Valspar?" asked the visitor naming this well known and highly advertised varnish. .

"No, I do not," said the dealer. "This kind that I do keep is just as good, even if it is not advertised so blame much. I think this advertising business is all bunk anyway."

This was rather a discouraging start, but the visitor could not let the argument end there, so he said, "Well don't you have any calls for Valspar?"

"Yes, I do," the dealer replied, "but I try to sell the customer the kind I keep. I don't always succeed, of course. They keep Valspar at the store across the road, and when some fool people get an idea in their heads, you can't get it out."

On the other side of the room was quite a sizable display of seeds of a well-known seed firm that has advertised extensively for many years.

"I see you have seeds. Do you like them?"

"Yes," replied the dealer, "I have carried them for twenty years and I sell lots of them."

When he was told that this seed firm, whose seeds he sold, spent thousands of dollars every year in helping him to sell those seeds through advertising, he said that he had never seen any of their advertisements, and he acted as though he doubted the statement.

This local dealer did not realize, and probably the average person does not know that much of modern business is based directly or indirectly upon the very thing that this dealer so heartily cursed—Advertising.

Fortunately, for us, the human mind has a habit of unconsciosuly registering upon its memory truths which are often repeated. Like the dealer mentioned, we may not believe in advertising, but its effects and results are just the same, and whether we know it or not, those results are contributing to our welfare because of the large part advertising plays in modern business and in modern civilization. Let us bring to your mind some examples to show that you and your life have been influenced by advertising. For instance, maybe you do not believe in advertising and never read it, but we bet you have heard of Sunkist oranges, a trade name that has brought prosperity to a cooperative organization of farmers through advertising.

If advertising has never had any effect on you, then, of course, you have never heard of Ivory soap, Heinz' pickles, Campbell's soup, Del Monte canned goods, Coca Cola, Postum, Jello, Blue Diamond walnuts, Blue Ribbon dried peaches, Kraft cheese, Elgin, Waltham or Ingersoll watches, Perfection oil heaters, Parawax paraffine, Eastman Kodaks, or Wearever aluminum and so on ad infinitum. If advertising never had any effect on you or your business, what about Dairymen's League ice cream, or Dairylea condensed and evaporated milk, or G. L. F. farm seeds or cattle feeds.

If you do not read ads, of course you have never seen the picture of the old man wheeling a barrow full of vegetables, which has made famous the Peter Hender-

(*Continued on page* 507)

$7 a Week For Your "Daily"

A NEW YORK newspaper recently made the statement that were it not for advertising, subscribers would have to pay about $1 a copy for their daily newspaper, instead of 3 cents. The article on this page will give you a brief but interesting glimpse of "behind the scenes" in the publishing business.

FROM A KODAK NEGATIVE

KODAK

Story-telling pictures like the one above, picture records of your crops, buildings and equipment, selling pictures of your cattle, chickens or hogs—they all represent the call for an Autographic Kodak on your place.

A High Class Instructive and Entertaining Example of Modern Advertising

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

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E. R. EASTMAN . . . . . Editor
FRED W. OHM . . . . . Associate Editor
GABRIELLE ELLIOT . . . . . Household Editor
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H. L. VONDERLIETH . . . . Circulation Manager

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OUR ADVERTISEMENTS GUARANTEED

The American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

Published Weekly by
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VOL. 111 June 16, 1923 No. 24

Are Farm People for Prohibition?

I NOTICE in your issue of May 26 that farm organizations are very strong for prohibition. Allow me to protest this claim. There are many, many men who are members of farm organizations that never touch a drop of alcoholic drinks that think as much of prohibition as they would of having a rattlesnake in bed with them. In fact, they think that prohibition is the worst curse that has ever been put over on innocent people, secured by lies, threats and misrepresentation. In this resolution the members had no say. For all you know, there may be 70 per cent against it. Many of them are, and I believe that the days of prohibition are numbered. Let us hope so. I am a strict abstainer.

Shortly after the New York State Legislature passed the bill repealing the Mullan-Gage Law, a joint meeting of the New York State Conference Board of Farm Organizations and New York State Cooperative Council, representing practically all the farm organizations of the State, adopted a resolution unanimously against the repeal of the Mullan-Gage Law. We reported this action in the news columns of our May 26 issue, which led to our receiving the above letter.

The most that the leaders of farm organizations can do on any question, and the most that a farm publication can do is to speak honestly for what they believe to be the opinion and wishes of a majority of farm people. We are sure that a majority of farmers are for prohibition. We are especially sure that they were opposed to the repeal of the Mullan-Gage Law, which gave State support to the National Government in enforcing the Eighteenth Amendment to the United States Constitution.

There has been a good deal of loose talking and joking about bootlegging, but when all is done and said, there has been less crime, less men in jail for drunkenness, less discord and unhappiness in thousands of American families and more money to spend for the benefit of all of the family since the Eighteenth Amendment than ever before. Therefore, the question whether or not prohibition is to continue to be a law of the land is one of the most, if not the most, important problem before the American people to-day. Unless those who are for it are ready to stand up and be counted, our correspondent is right when he says that the days of prohibition are numbered.

Are we wrong in interpreting farm sentiment on this subject? If so, we want to know it. Is the writer of the above letter right when he says that there may be 70 per cent of farm people against prohibition? Or is it nearer the truth that 95 per cent of the farm people bitterly regret the repeal of the Mullan-Gage Law?

Are we right or wrong? Let us have your views in a short letter. Ten thousand farm letters would be an effective answer to those who say farmers are opposed to prohibition. Any letter published will not be signed unless you wish it.

Good Farming and Bad Weather

THE month of May was one of the coldest and also in most sections one of the driest on record. As a result, it has been taking considerable of the farmer's time lately to cuss the weather. Warmer weather and some scattering showers during the early part of June is relieving the situation somewhat, but such a long period of unfavorable weather has created a serious situation on many farms. Hay is likely to be light; pastures have been backward and poor, and many planted crops came up poorly and have made little progress.

It is in the unfavorable season that the poorer class of farmers get hit the hardest, particularly those who have little opportunity or make little effort to practice better methods. For instance, seeds that are weak in germinating power may do fairly well in a good season, but will come pretty close to failure in a bad one. After the seed is up, those crops that have been well planted, well cultivated and have had other extra care will come through pretty well in spite of bad weather; but no crop, and no animal, can stand the combination of a poor season coupled with poor care.

Most farmers have learned that it is poor business to get very much discouraged, at least until the season's story is told and the harvest is over. Time and time again we have seen crops that did not promise much in the beginning that finally came through in pretty fair shape in the end. It is almost astounding, for instance, to watch the growth of a corn field which may dally along making a poor growth and looking rather sickly at the beginning, and until early July, and then suddenly wake up and shoot ahead surprisingly for the next six or eight weeks. Farmers know, too, that even though the season is unfavorable, those who use good methods are pretty apt to have as much, or more, money as they do in a season when there is a too-abundant harvest with resulting low prices.

"Tradin' Horses"

"EDDIE," says George Duff to us a year or so ago when we were on a visit to Thompson's Creek, "I have been tradin' horses again, and I'll bet that feller I traded with will feel like thirty cents when he finds what I let him in for with that old crowbait I got off on him, especially when he remembers that really good horse he gave me for him."

We said nothing, and kept right on saying it, for we well knew from knowledge of Duff's previous and frequent excursions into the field of horse barter and trade, that all we had to do was to keep still and the action, or mayhap the lack of it of this latest addition to the Duff stables, would speak for itself.

There may be business deals where both parties profit, but horse trading is not among them. Judging from Duff's frequent experiences, it seems to be a case of "To him that hath, it shall be given, but to him that hath not, it shall be taken away, even that which he hath." George Duff was right in his bragging about getting rid of a "crowbait" in this, his latest deal, but he should have stopped right there without any undue enthusiasm for what he received in return.

Shortly after the trade, George had to go to town and he thought it an excellent opportunity to drive the new horse down the valley as a sort of an exhibit to envious neighbors. He did so and there was an exhibition, but no envy developed on the part of the neighbors. At the second farm Duff stopped to pass the time of day. When it came to starting again, no ordinary means of entreaty or persuasion could rid this horse of a most embarrassing determination to "stay put." Finally Duff tried the remedy for balking horses which had been effective on the results of other and previous horse deals. The remedy worked. In fact, it worked so well that the horse went away from there so fast that he left poor Duff standing in the middle of the road with his mouth open horrifiedly watching his newly-acquired property hitched to the poor old democrat wagon end a run-a-way down the road by attempting to climb a telephone pole.

Several months later we were again visiting with George in his horse barn. As we talked there came every now and then from the stables back of us a hollow and dismal cough, and each time we noticed a strained and worried look on Duff's usually cheerful countenance, accompanied by a rather forced effort to divert our mind by speeding up the conversation. Finally we said, "Say, Duff, we hate to be pessimistic, but that new horse of yours certainly has a bad case of the heaves."

"Heaves? No," says Duff, "all he's got is just a little cold."

"By the way," we continued, "when we were here last time you were quite enthusiastic about your new horse and were telling us that he was sound, willing, and perfectly safe for women to drive. Did he prove out all right?"

"Oh yes," said Duff, "of course, he is windbroken, has the heaves, three spavins, is blind in one eye, and can't see out of the other; but otherwise, he is perfectly sound. As to safety, he will bite, kick, strike and run away; otherwise he is perfectly safe for women to drive.

"By the way, I'd just as soon you didn't mention this conversation. Jim Smith, over Richland way, who traded me four or five years ago that horse that developed the blind staggers, telephoned that he might drop down here in a day or so and we may be able to whack up a trade."

The Good Half Supports the Bad

THE National Dairy Association points out that of the 25,000,000 dairy cows two years old and over in the United States, there are 5,000,000 that are really non-producers which could be eliminated entirely with no loss to the nation's wealth. The average production in the United States per animal is only about 4,000 pounds, while the average production from cows of good commercial herds ranges from 6,000 to 12,000 pounds per cow, with individual records mounting still higher. Therefore, half of the cows in the United States give less than 4,000 pounds of milk per year. By the elimination of the poor one-fifth or 5,000,000 cows, the output of milk would be reduced one-sixth, a loss which could easily be overcome in the improvement of the care and feeding of the remaining cows to the greatly increased profit to everyone in the dairy industry. One half the cows must first support the other half before they can support the farmer and his family.

A June Story

By E. R. EASTMAN

"BLESSINGS on thee, little man,
Barefoot boy, with cheek of tan!
With thy turned-up pantaloons,
And thy merry whistled tunes;
With thy red lip, redder still,
Kissed by strawberries on the hill.

"Oh, for boyhood's time of June,
Crowding years in one brief moon,
When all things I heard or saw,
Me, their master, waited for."

—WHITTIER

In an old back hill lot one June day a quarter of a century ago, a barefoot boy was picking wild strawberries. The primitive calls runs high in every country youngster. Some of them satisfy it by getting away once in a while from the dull and monotonous round of farm work to go fishing; others will tramp all day with a gun in the autumnal woods, hoping to get a rabbit or partridge; and still others find some real fun in going berrying.

In a way it is too bad that the old slashings with their fallen and rotting logs and their berry bushes growing higher than a man's head have mostly disappeared from the East. In them the rabbits scurried up and down; the cat bird cried "Thief, Thief!" and the blackberries grew large and plentiful.

There is something of the spirit of gold mining that comes to the young berry picker when he discovers a real "berry patch" and there is no achievement that may come to one in later life that quite equals the satisfaction of Mother's praise for a pail of berries which "was heaping full before they settled."

From where the boy stood, there stretched away hundreds of acres of poor hill land, good for nothing but woods, on which no farming should ever have been attempted. Twenty-five years ago and still to-day there are thousands of such acres throughout the East covered with worthless wire grass, daises and devil's paintbrush.

Down on the other side of the lot, old Milden was plowing under the weeds in the vain hope of producing a good crop of buckwheat. As the boy paused from his picking to absorb some of the spirit of the June day, there came up to him across the lot a constant stream of invective and expostulation from old Milden as he labored with his horses, the poor plow and the stony worthless soil.

The boy can close his eyes and look back across a crowded twenty-five years, and as if it were yesterday, he can still see the old fellow urging his horses along the stony furrow and hear him curse the old farm plugs in a harmless and ineffectual manner.

"Dod blast your danged hides, geeup out o' thar 'fore I git a rail and complete your education! Ginger to grindstones git out o' that thar furrow, can't ye?"

The strawberries seemed to run pretty good for awhile, but as the paintbrush became more dense the berries got scarcer and the boy was beginning to feel that he could not get the big pail full. He had a feeling that there were more and bigger berries near where Milden was plowing, but because of the fierce talk the boy feared that if he went down there he would be chased.

Finally becoming completely discouraged, he started for home, and Milden saw him. "Hey, boy! Come here" said he. Expecting a scolding the boy went down to where the old fellow had stopped his horses. "Ain't got your pail full have yuh?" said he. "This danged soil has got so, most of it won't even grow wild strawberries. But if you go up on the upper side of this 'land' you'll find a nice lot of berries. I used to find it kind o' pleasant to go berryin' myself years ago and I know how you feel to have to go home without your pail full. By ginger, this dod-blasted farmin' business leaves me little chance now-a-days for any of the pleasant things o' life. Go on thar Dave, git up Sal!" and the plowing with its accompanying storm of espostulation began again.

Following Milden's kindly advice the boy found the berries thicker and filled his pail.

On the way home down the long, dug road he saw something shining in the dirt and digging it out found it to be a silver dollar, which in those days to a country boy was a very great fortune indeed. So great, in fact, that that pleasant June day so long ago—because of Mother's praise over the milk pail full of berries and the shining silver dollar—still stands a high-spot in the hall of boyhood's memories.

* * *

Last summer we rode by the place where Milden used to live. The farm was **deserted.** The barns had fallen in and the windows of the farmhouse had been broken by boys of another generation. Never again will the old place know the joys and sorrows of a farm home, nor the laughter of little children.

As we stood looking at the ruined buildings, so typical of the hopes of thousands of farmers whose struggle for a life time with debt, the devil's paintbrush and a worn-out soil, the hope came that Milden and all his fellows have found a place where the devil's paintbrush blooms not, and where the hard struggle for existence, leaves more time for some of the pleasant things.

THE CRY OF THE DREAMER

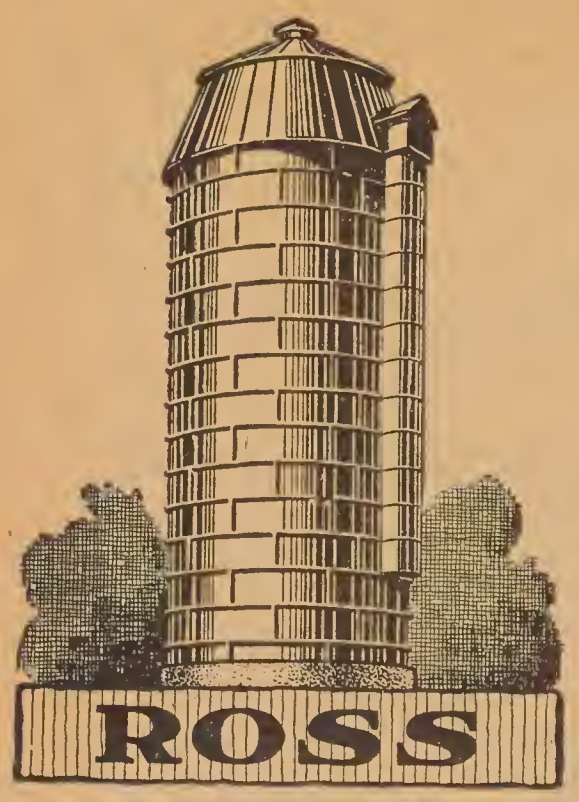
I am tired of planning and toiling
In the crowded hives of men;
Heart-weary of building and spoiling,
And spoiling and building again,
And I long for the dear old river,
Where I dreamed my youth away;
For a dreamer lives forever
And a toiler dies in a day.

I am sick of the showy seeming
Of a life that is half a lie:
Of the faces lined with scheming
In the throng that hurries by.
From the sleepless thoughts' endeavor
I would go where the children play;
For a dreamer lives forever,
And a thinker dies in a day.

I can feel no pride, but pity
For the burdens the rich endure:
There is nothing sweet in the city
But the patient lives of the poor.
Oh! the little hands too skillful,
And the child mind choked with weeds!
The daughter's heart grown willful,
And the father's heart that bleeds!

No, no! From the street's rude bustle,
From trophies of mart and stage,
I would fly to the wood's low rustle
And the meadow's kindly page.
Let me dream as of old by the river,
And be loved for the dream alway;
For a dreamer lives forever,
And a toiler dies in a day.

—John Boyle O'Reilly.



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2 Elm St., Quincy, Ill.

The Desire To "Do"

What We Need Most in this World is Inspiration

By H. E. COOK

A FEW weeks' rest has been good for all of us. I find it often most embarrassing to write about practical matters because they don't work out as I expected they would. Then again, I see the work being done by many quiet people, unheralded and without thought of public notice, that is better than mine, and I wonder what their feelings must be if they read what I say. However, there may be some inspiration gained, and so, after all, there may be good come out of it. My observation has been these many years that adults as a whole are more in need of inspiration than of information or education. In fact, when I become deeply interested in an article, or what some one tells me, it is the desire aroused in me to do, rather than the "how" of what is said that does the good.

H. E. COOK

Facts are no good until we assimilate them into our own mental fiber organized and arranged according to our own particular method of filing and bookkeeping. One of the most outstanding farmers' institute directors of this country some 25 years ago, the Hon. O. C. Gregg of Minnesota, reckoned the purely educational features as of minor importance. His plan was to hold large meetings where mass psychology could be trained into action, and then he said the people will get the facts through contact and from published information.

Generally speaking, Mr. Gregg, in his palmy days, was not rated high, but more and more, as the years go by, I rate him ever higher. We all know people who have the power within themselves to generate all the enthusiasm that they can put into practical use, and then we say they are self-made. Well, whatever it is, it makes the wheels of industry and social order go round and gets things done.

A Leader of Men

More than 30 years ago, a widely known lecturer, who was himself a business failure, led thousands to make better butter and to feed balanced rations which put their own business going right. And so, if I have ever given renewed courage to anyone, perhaps it is worth while, and I ought not to have a grudge against myself. Dooley once said, in the days when Roosevelt was getting first headlines, "that no man who had a grudge against himself would ever be Governor of a great State." Give us clean, wholesome, forward-looking vision and inspiration, and we won't go far astray.

Never before in the history of the world has there been the opportunity for such a vast number of young people without inherited means to become owners of property as now. Maybe no times are better for the rare individual who crops out only occasionally. The earning power of a person without a single dollar to keep him is just simply enormous as long as single. Of course, when a family is to be supported, the story is a different one.

Young Folks Less Economical

But I do know that young people are not as a rule developing economy. With all of the apparent unbalanced economic relationship between the farm and city, I do not believe there is a better chance for the average young man, not the rarely specialized, unusual one, than to work in the rural sections and make economy a cardinal virtue. Lands and homes are cheap. Five thousand dollars will buy a business and a home, and nowhere can a good business man do a larger volume of business based upon the investment than upon this $5,000 farm.

The personal element valuation can be expanded all out of proportion to the money invested. The weakness of the situation is that the selling value of the business does not increase with the income because the man power is the outstanding force and value. But why sell? We must live somewhere, and staying in one place and building a reputation for character and high-grade production isn't set up over night like a circus tent, by any means.

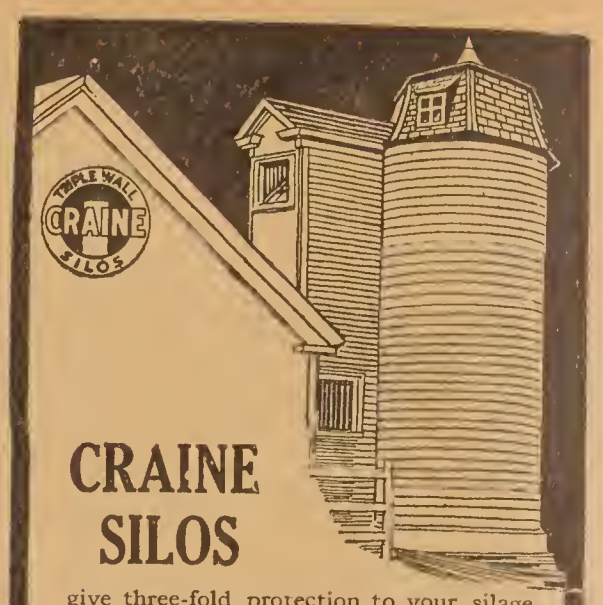
One of the finest compliments I have ever heard paid to a person was this statement by a townsman to the Rev. Dr. J. M. Payson, with whom I was associated at the St. Lawrence State School for nine years. He said that whatever the Doctor did he was always in competition with himself, and I can vouch that it was true, every word.

A Worthy Challenge

Its originality and deserved application marked it with me as never to be forgotten. He wasn't in competition with anyone else, but always trying to do a little better than before. And there is no place under the sun where that plan carries farther to-day than in the production of farm products. It is not true that consumers fail to recognize quality. They may not take to what the producers say at the outset, but if he is always in competition with himself, his reputation soon gets into the atmosphere and people expect quality and no questions asked, and it won't make any difference what the product may be. And so, boys, cut out some of the movies. Buy necessities of good quality. Don't look shabby.

Pick out a savings bank and regularly deposit a certain percentage of your earnings, it won't matter how much, for if continued long enough the delight of adding each week or month will soon be more attractive than the movies or automobiles. And the amount will then take care of itself. It's worth trying.

Figures from the United States Department of Agriculture show that the consumption of milk is increasing in the city but not in the country. The "milk bar" at farm picnics and country fairs are becoming more popular. We should have more of them



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Does not blister or remove the hair and horse can be worked. Pleasant to use. $2.50 a bottle, delivered. Describe your case for special instructions and Book 5 R Free.

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The whole line of famous Peerless Fence; Barb Wire—Steel Posts—Gates—Roofing and Paints are now being sold direct from factory at 40% lower prices. Write for free catalog—get our NEW low prices before you buy.

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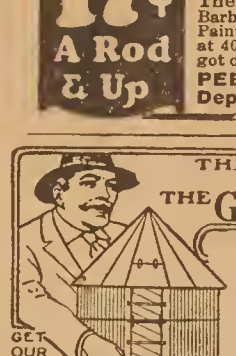

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VEGETABLE PLANTS Cauliflower, Cabbage, Brussels Sprouts, Celery, Tomato, Sweet Potato, Kale, Egg Plant, Pepper plants.

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Green Mountain SILO
Will it Stand? YES
WRITE FOR CIRCULAR
THE CREAMERY PACKAGE MFG. CO.
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RAISE SILVER FOXES

Capital unnecessary. $5 or more a month will give you some highest-quality breeders. Investigate NOW our plan of unequaled co-operation.

SILVERPLUME FOXES, Inc.
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MILLIONS "FROSTPROOF" CABBAGE PLANTS

Copenhagen, Wakefields, Succession, &c., 300, $1.00; 500, $1.25; 1,000, $2.25. Mailed prepaid. Expressed 10,000, $15. Tomato and Sweet Potato plants, 300, $1.50; 500, $2.00; 1,000, $3.00. Expressed, 10,000, $20 cash. Don't take chances. Order from largest grower in Virginia. Guaranteed good delivery anywhere, or money refunded. J. P. COUNCILL COMPANY, Franklin, Va.

PATENTS Write today for free instruction book and *Record of Invention* blank. Send sketch or model for personal opinion. CLARENCE A. O'BRIEN, *Registered Patent Lawyer*, 904 Southern Building, Washington, D. C.

BINDER TWINE

Granges and Farm Bureaus get our low prices. Farmer Agents wanted. Sample free.

THEO. BURT & SONS, Box 70, MELROSE, OHIO

The World's Greatest Shopping Place

(*Continued from page* 503)

son brand of seeds. And you have missed that wonderful advertisement showing a dog looking into a Victrola and entitled "His Master's Voice."

But, of course, you do believe in advertising, or, at least, you use it, in one way or another, both in the sale of your products and in what you buy, for it is practically impossible to do even a small business without being affected by it.

Its largest and also its best development has been within the last twenty-five years. We are sorry to say that in its earliest days advertising was not the honest and reputable business that it is to-day. Early advertisers, for some reason or other, did not at first realize that honesty is the best policy, and they seemed to vie with one another in exaggerated and actually untruthful statements about the wares they were trying to sell.

Even many of the more reputable papers and magazines once carried "ads" that promised "something for nothing," and endeavored to get the consumer's dollar on misrepresented statements. How many thousands of farm boys and girls have pored wistfully over advertisements which promised in such glowing terms the absolutely impossible to those who would send them money? How well we remember our own wild dreams of becoming a great hypnotist and making barrels of money. All we had to do was to answer an advertisement and send $5 for the correspondence course in hypnotism. There were many in the old days who answered such solicitations only to be disillusioned and disappointed, and to have ingrained a prejudice against all advertisers and advertising which years of truthful statements and honest dealing have not been able to overcome entirely.

So great was this prejudice built up by the dishonest advertiser that even to-day the average reader does not realize the complete revolution that took place years ago in advertising methods, and the tremendous extent to which every business in the world, including even farming, is built up on one kind of paid publicity or another. The great majority of advertising to-day is reputable and reliable. Any magazine which accepts that which is not, is soon doomed to failure, and any advertiser who long persists in statements which are not borne out by fact not only will not long succeed, but is headed straight for jail.

Some of the best trained men in the business world are engaged in the advertising business. Talent fully equal to that of editors and writers of editorial matter in magazines goes into the writing of advertisements that are attractive, instructive and worth reading. The sky is the limit for writing advertisements which will sell the object advertised. But there is always one qualification insisted upon above all others, and that is honesty in statements.

The advertising pages of honest papers and magazines are the world's greatest shopping places, where the consumer can go at his leisure and buy anything that all the merchants of the world have for sale from a dress for the baby starting life's journey to the coffin at the end of it.

How many, many times, we used to hear father complain about some issue of his favorite paper because he thought it contained too much advertising. The same complaint is often heard still. Father did not realize that were it not for the advertising in his paper, he probably would not have had any paper at all. He would not have been able to afford it. Father did not know—and the average reader of to-day does not know—that the subscription price of most publications is a mighty small item toward paying for the tremendous publication costs.

For instance, one can buy fifty-two issues of a great magazine like the "Saturday Evening Post" for two dollars a year. This is about four cents a copy. The paper alone used in the "Post' costs pretty nearly as much as the subscriber pays for the completed magazine. This is to say nothing at all of the hundreds of thousands of dollars which pay for stories, articles and other editorial costs; and to say nothing of the hundreds of thousands of dollars for investment in printing presses and for the payment of the thousands of workers.

The same is true of other magazines, and of the weekly and daily newspapers. Often the trouble of obtaining and maintaining the subscriptions costs more than all of the money that comes from them. It is advertising—and advertising alone—which has made the people of America the greatest reading public in the world by giving them almost unlimited amounts of best in news, information and literature at a purely nominal cost, and all of this is in addition to the big part it has played in our industrial and social life.

Can You Tell What Teazles Are Used For?

(*Continued from page* 502)

racks which can carry about a half ton. The average production per acre is 150,000 burrs.

The variance in the size of the burrs and the fluctuating demand from the different mills makes the marketing of teazles one where considerable experience is necessary. Several attempts by the inexperienced to market teazles have been made. Mr. Talcott says the result was that the other fellow got the teazles, and the man who marketed them got the experience for his pay.

So far, there has been no successful attempt on the part of growers to market their own burrs in a cooperative way. However, the Skaneateles Teazle Growers' Cooperative Association was organized in 1920. William T. Thorne, a large grower and now president of the Farm Bureau of Onondaga County, is president of the association.

Grading is Tedious Work

At the plant of the buyers, men with a lifetime experience select and grade the burrs in three general grades. The stems are trimmed to exact lengths and the different grades packed in large boxes ready for shipment to the factory. It takes an experienced eye to do this grading, as not only the size of the burr must be considered, but the most important thing to consider is the strength of the hook.

As I have observed the teazle industry at Skaneateles the last few years, it would be my advice to anyone who contemplates growing teazles to move to one of the good farms near Skaneateles. The land is well adapted to general farming. I would grow general crops for a couple of years, and from observation and study would then decide whether or not there was sufficient demand for teazles to warrant the growing of teazles. I certainly would want to see a change in the level of labor prices and the prices that are being received for the teazle burrs.

What happened to Mr. Talcott? How did he save his neck growing teazles? He made some money out of teazles, first, because he put in plenty of the hard work and hand labor that is necessary, and because a few acres of teazles fit in with a well-organized rotation of general crops that grow around Skaneateles.

1924 MEETING OF NEW YORK GRANGE IN BUFFALO

The annual meeting of the New York State Grange will be held at the Statler Hotel in Buffalo on February 5 to 8, inclusive, 1924. In securing this particular hotel for the meeting, the Executive Committee feels the Grange is particularly fortunate, for it makes it possible to hold the sessions in the Grand Ballroom and all of the committee meetings under the same roof.

Have been taking American Agriculturist for 16 years and couldn't farm without it. We are a family of nine, and all like the clean, wholesome serials you print. I think the "Valley of the Giants" splendid. If we could have moving pictures of such stories as you have in your paper, and they would be played without that unwholesome manner such as the movie actors have, then I would think them worth while. Can't you start such a movement?—G. N. Stenger, Chambersburg, Pa.

HAMMONDS SLUG-SHOT — AN INSECTICIDE FOR GARDEN USE — USED SINCE 1880 — 1915

SLUG SHOT

Used from Ocean to Ocean for 35 years
Sold by Seed Dealers of America

Saves **Currants, Potatoes, Cabbage, Melons, Flowers, Trees and Shrubs** from Insects. Put up in popular packages at popular prices. Write for free pamphlet on Bugs and Blights, etc., to **B. HAMMOND, Beacon, New York**

30 Days' Trial
OTTAWA
Prices Smashed on this better, faster cutting machine. Saws logs, limbs, falls trees. 10-year Guarantee. Cash or Easy Terms.
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If you have had experience in selling goods or subscriptions to farmers, write us at once, giving full information about yourself.

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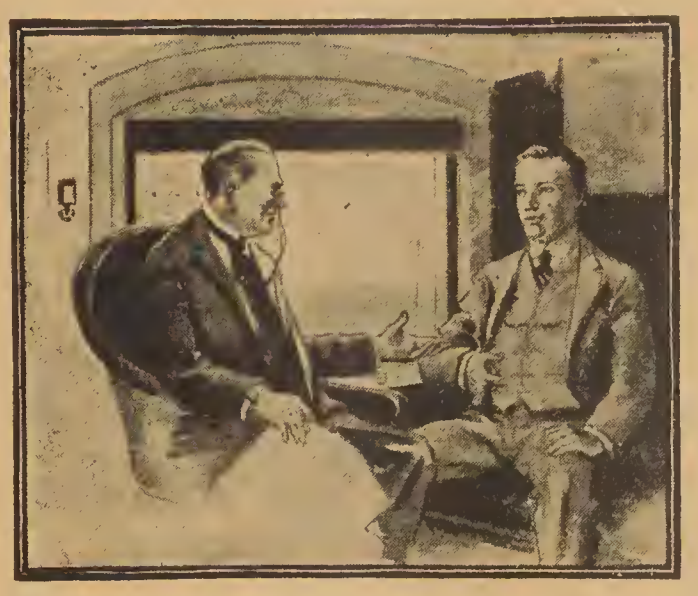

"Life Insurance Without Agents is a Distinct Public Service"

Postal Life Method Sanctioned by the United States Supreme Court

Timely Talk on a Vital Subject

(Scene: Pullman smoking compartment. Judge Kirkland and Lawyer Roberts continuing a conversation begun at dinner.)

Judge: "Well, this business of selling direct-by-mail throughout the country is surely very popular with the public."

Lawyer: "Yes, but some of my clients say that in the interest of local merchants, the States ought to find some way to check it."

Judge: "I don't see why they should check it or how they can do it. Selling merchandise is an interstate business. I can sell and you can buy in the best market wherever it is. What can a State do about it?"

Lawyer: "You're probably right, I'll admit. The States can't very well put the 'kibosh' on legitimate interstate business."

Judge: "Certainly not. The States cannot hold up arbitrarily any direct-by-mail transaction, nor can they tax life-insurance premiums thus sent by mail."

Lawyer: "How's that?"

Judge: "Policies are written for people 'direct,' all over the country, and have been for years. The United States Supreme Court has decided unanimously that life-insurance premiums on such policies are exempt from State taxes. The usual license-fees and charges also do not apply. All this helps policyholders."

Lawyer: "Oh, you refer to the Postal Life?"

Judge: "Yes, that Company hasn't any agents and never has had. United States Senator Overman, who matured one of its policies, said on the floor of the upper House of Congress two years ago: 'It is a very strong company, and is conducting a great business in this country. They do it all by printed matter.' The applicant deals direct, personally or by letter. The method is good common sense as well as sanctioned by law."

Lawyer: "You are quite right. I wrote the Postal once myself just to find out how the Company did business, but never followed it up."

Judge: "I go you one better; I not only wrote them, but took a policy nine or ten years ago and have carried it ever since."

Lawyer: "How's the cost?"

Judge: "Lower than in other companies for the same kind of insurance—legal reserve—and besides that they give me a free medical examination each year just so I can keep in trim."

Lawyer: "That's pretty good. You live in Idaho and deal with a New York company by mail. Did you ever look the Company up?"

Judge: "Only to know that it is chartered and licensed by New York State, whose laws are very strict, but I called on them when I was East last June. They're now in their new building on Fifth Avenue."

Lawyer: "Are they? Believe I'll write them to figure on a policy for me."

Judge: "Don't think you could do better. Life insurance without agents is a distinct public service. The point is made, and I think it is a good one, that the Company is subject to the United States Postal Authorities. The Postal simplifies the business, saves you money, safeguards your health and will treat you right in every way. I'd take another policy myself if I hadn't passed the age-limit.

9½%

Dividends *Guaranteed* in your Policy and the Usual Contingent Dividends Paid as Earned.

Also, the life-prolonging service of Company's Health Bureau benefits policyholders and helps to keep insurance cost down.

That tells the story. Thoughtful insurers like Judge Kirkland take policies with the Postal and not only hold on to them but are disposed to take new insurance, while those like the lawyer Roberts, who at first write out of curiosity, at last find they can save money by taking a Postal Policy and they do it.

Find Out What *You* Can Save

You should take advantage of Postal benefits and economies. Call upon or write to the Company, or send in the coupon

You will receive full information based on official reports regularly filed with the New York State Insurance Department. No agent will be sent to visit you. The resultant commission-savings go to *you* because you deal *direct*.

Postal Life Insurance Company
WM. R. MALONE, President
511 Fifth Avenue, New York

American Agriculturist—6-16-23

Postal Life Insurance Company
511 Fifth Ave., New York

Without obligating me, please mail full insurance particulars for my age.

Name.....
Address.....
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Occupation.....
Exact date of birth.....

Engine Prices HIT BOTTOM 1½ H-P $37
Add $3.60 from Pittsburgh
2 H-P., 3½, 5 and 7 H-P. Get new schedule of low prices. Remember you are getting these bargain prices on the FAMOUS OTTAWA ENGINE

The most dependable engine. Starts easy, pulls more H-P. BIG BOOK FREE. Write.
OTTAWA MFG. CO.
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SAVED $30.00 Get Brown's New CUT PRICES

W. T. Greathouse writes: "Fence received yesterday. I saved $30.00 in buying from you." Our new cut prices are way below others—and
Brown Pays Freight
Write for our new 1922 cut price catalog—see the dollars you save. 150 styles. Double galvanized, open hearth wire. Roofing and paints.
THE BROWN FENCE & WIRE CO.
Dept. 3004, Cleveland, Ohio

Natural Leaf Tobacco Mild or Strong. Extra fine smoking 5 lbs. $1.25; 10, $2.00; 20, $3.60. PIPE FREE; Hand-Picked Chewing, 5 lbs. $1.50; 10, $2.50.
TOBACCO GROWERS' UNION, Murray, Ky.

PATENTS SECURED. Send sketch or model of your invention for examination. Write for FREE book and advice.
JACOBI & JACOBI, 378 Ouray Bldg., Washington, D. C.

CATTLE BREEDERS

FOR SALE
GUERNSEYS——HOLSTEINS
Otsego Co. has 820 herds of cattle tuberculin tested and under Federal supervision, from which we purchase our supply.
We endeavor to have on hand 50 head of high-grade, high-producing cattle.
Hindsdale Farm, Springfield Center, N.Y.

HOLSTEIN BULLS FOR SALE
Sons of
DUTCHLAND COLANTHA SIR INKA
FISHKILL FARMS, Hopewell Junction, N. Y.
HENRY MORGENTHAU, Jr., Owner

HOLSTEINS AND GUERNSEYS
Fresh cows and springers, 100 head of the finest quality to select from. Address
A. F. SAUNDERS, CORTLAND, N. Y.

HOLSTEINS
Two car loads high-class grade springers. The kind that please. One car load registered females. Well bred, strictly high-class. Several registered service bulls. J. A. LEACH, CORTLAND, N. Y.

HOLSTEIN BULL Born Dec. 7th, 1921. Sired by a 33-pound Son of King of the Pontiacs, Dam is 24.95-pound daughter Changeling Butter Boy. He is nicely marked, splendid individual, well grown and ready for service. Priced to sell.
FRED. A. BLEWER
Owego, N. Y.

HIGH-GRADE HOLSTEIN COWS
fresh and close by large and heavy producers. Pure bred registered Holsteins all ages; your inquiry will receive our best attention.
Browncroft Farm McGRAW New York

HIGH GRADE HOLSTEIN HEIFER CALVES $15
each; registered bull and heifer calves, $25 up; registered bulls ready for service, and cows. Address
SPOT FARM, TULLY, N. Y.

SWINE BREEDERS

PIGS FOR SALE
Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.00 each. 8 to 9 weeks old, $6.50 each.
15 Duroc and Berkshire cross. Fine feeders, 8 to 10 weeks old, $7.00 each.
Pure-Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.
K. H. SPOONER, WALTHAM, MASS.

PIGS FOR SALE
Yorkshire and Chester White Cross, and Chester and Berkshire Cross, all large, growthy pigs: 6 to 7 weeks old, $5.75 each; 7 to 8 weeks old, $6 each; 8 to 9 weeks old, $6.50 each. 15 Pure Bred Yorkshire Sows, 7 to 8 weeks, $7 each; 20 Pure Chester White Pigs, 6 to 7 weeks old, $7 each, and 10 Berkshire and Duroc Cross, 8 to 9 weeks old, $6.50 each. These are all good pigs, bred from the best of stock. I will ship any part of the above lots to you on approval, C. O. D.
WALTER LUX, 388 Salem St., Woburn, Mass. Tel. 86

LARGE BERKSHIRES AT HIGHWOOD
Grand champion breeding. Largest herd in America. Free booklet.
HARPENDING Box 10 DUNDEE, N.Y.

O. I. C. and CHESTER WHITE PIGS Six weeks old. $5.50 each.
OAKS DAIRY FARM, WYALUSING, PA.

REGISTERED O. I. C. AND CHESTER WHITE PIGS.
E. P. ROGERS, WAYVILLE N. Y.

LEAF TOBACCO, Five pounds chewing $1.75; ten, $3.00; twenty, $5.25; five pounds smoking $1.25; ten, $2.00; twenty, $3.50. Pipe and Recipe Free. Send no money, pay when received.
UNITED TOBACCO GROWERS MAYFIELD, KY.

Among the Fruit Growers

New York Reports Lighter Apple Crop Than 1922

THE month of May was by far the dryest month of the year, and all crops in Western New York showed effects of the drouth. Only 2.13 inches precipitation were recorded at the Sodus sub-station of the Weather Bureau. The mean temperature for the month was 52.1 degrees, with a maximum reading of 83 degrees and a minimum of 27. It was a month of erratic changes, the first thunderstorm being registered on the 16th, followed by a snowstorm on the next day. Small fruits were damaged by the low temperatures, though this damage will be much less in the strip of towns facing Lake Ontario.

The canners throughout the fruit and vegetable belts of the State are making big plans on the present season, and many plants have been improved and enlarged in anticipation of the industry at last reaching a firm basis of growth, without hindrance of war, fuel or labor conditions.—A. H. P.

In Western New York

Monroe Co.—Apple trees are in full bloom. Early varieties have passed the height of bloom. On the better ground and a little back from the lake, where the season is a little in advance of the lake shore belt, late varieties, such as the Baldwins, are in full bloom. In general, the late varieties are showing good bloom. All varieties promise a shorter crop than last year. The weather has been fairly favorable for pollenation, although it is a trifle cool for bees to work well.

Niagara Co.—From all indications the fruit crop will be about 50 per cent normal through this section. Young peach trees are quite heavily set, while the old trees are not so heavy. Greenings promise a light crop, Baldwins show up much better than Greenings. It looks as though the Bartlett pear crop will be short, while trees of Kieffer variety are heavily laden.

Wyoming Co.—In general, the season throughout this territory is approximately two weeks behind last year. Indications are that the pear crop will be light. Apples look good, with the exception of Baldwins, which are blooming rather light.

Ontario Co.—From all indications, the peach crop this year will be short. Greenings and Baldwins are expected to yield a fair crop, much in comparison to last year.

Seneca Co.—Frosts during the last week of May nipped early garden truck, which necessitated replanting. Very little fruit was affected. Sweet cherries suffered most. Cherry and peach growers are looking for a bumper crop this year in the Geneva section.

In the Hudson Valley

Columbia Co.—Apples, peaches and cherries are in heavy blossom, with the exception of some Baldwins. It looks as though the pear crop will be short. Frost did little or no damage north of the city of Hudson. South of the city, however, some damage was done to early apples and pears. Recent rains and cold damaged the set of pears and early apples. It is a trifle early at this date to predict with any degree of accuracy how heavy the various crops will be.

Rensselaer Co.—All varieties of apples are in full bloom with the exception of Wealthy. Last year this variety bore heavily, while this year will yield not much more than 50 per cent of a crop. Pears are rather light. Indications from the bloom promises about a 50 per cent crop of that of last year. Small fruits bloomed quite full, although they were injured to some extent by frost.

TO TEST EFFECT OF DUSTING FRUIT IN WAYNE COUNTY

The New York State College of Agriculture has stationed H. W. Fitch on the Sodus Fruit Farm, Inc., to conduct an extensive dusting and spraying experiment this season. The work will consist of experimenting with various kinds of sulphur and copper lime dust, in order to find out the best materials to use and the best times to use them. The experiments will be tried out on peaches, sour and sweet cherries, apples, plums and prunes. In the case of the apple, the dusting will be compared with liquid, in its efficiency in controlling insects and diseases. Both large and small trees will be used. It is believed that more growers are dusting fruit in Wayne County than in any other county of the State, and this experimental work conducted by Mr. Fitch ought to be very valuable from the standpoint of the many who dust.

Last year these experiments were conducted in a Greening orchard on the farm of E. W. Catchpole & Sons, of North Rose. Dust mixtures were used at the rate of four pounds per tree and spray mixtures at the rate of seven and one-third gallons per tree. Six applications were made, with the exception of plat 2, which had seven treatments. Nicotine sulphate was used with lime-sulphur in the calyx application in plats 4 and 5, and with dust preparations for the calyx treatment of plats 2 and 3.

SUMMARY OF NORTH ROSE EXPERIMENTS

Treatment	Percentage of apples affected with scab	Percentage of apples injured by codling moth	Percentage of apples injured by red bug
Check, untreated trees..	83.94	6.00	5.27
Dust (90-10) without nicotine, six applications	47.85	5.31	1.44
Dust (90-10) with nicotine, six applications	20.65	5.68	0.00
Dust (90-10) with nicotine, seven applications	25.09	3.58	0.00
Dust (dehydrated copper sulphate) six applications	56.85	7.22	5.69
Spray (lime-sulphur) six applications	7.86	1.71	0.00
Spray (lime-sulphur) with extra lead arsenate, six applications.	8.42	1.73	0.00

SPRAY RINGS YIELD DIVIDENDS

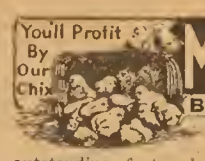
A recent release from the central office of the Western New York Cooperative Packing Association on the comparative returns of sprayed and unsprayed apples, carries a message to fruit growers that will stand considerable study.

All the local associations in the Western New York Cooperative were divided into two groups. One group embodied those associations in counties where there is a spray service. It has been found, that the growers in this group will receive a probable pool price of 55 cents more per barrel on Baldwins, tree run, and 33 cents more per barrel on Greenings, tree run, over the price received by those growers in the group of associations where no spray service was available.

A second sub-division, according to the release, was made by dividing the members of the associations where spray service was available into two groups. Those who received the service will receive approximately 17 cents more per barrel for Baldwins and 25 cents more per barrel for Greenings, than the growers in that group who did not have the service although it was available.

A third comparison was made among the growers who actually received the service. Those who received the service and really used it, in 13 associations where it was possible to get intimate knowledge of the growers, will average 25 cents more per barrel, tree run, on Baldwins and 27 cents more per barrel, tree run, on Greenings, than the average of all other growers in the same association who received the service but did not use it. The total differential therefore is on the average 97 cents per barrel on Baldwins and 85 cents per barrel on Greenings, tree run.

A clear indication of how the spray rings are operating lies in the fact that growers are voluntarily requesting that they be included in the service. It means a great deal to those men in counties where there is no spraying service. They need it. They are missing something. It means a great deal more to the man who has it, but does not use it. He is throwing opportunity away.



MOSS'S CHICKS
BEST IN THE WORLD
This season has proven to be the biggest season in our history. An outstanding factor is the great number of reorders from customers of past years, which speaks most convincingly of our High Quality and Superior Service.
You will receive the healthiest, most robust chicks produced, for that is the kind we are famous for throughout the country. If you want fall layers order now, we are still in a position to ship immediately.

PURE BRED BABY CHICKS

Variety	Per 25 Chicks	Per 50 Chicks	Per 100 Chicks
Leghorns - White and Black	$4.00	$7.50	$15.00
Leghorns - Buff and Brown Barred Rocks	$4.50	$8.50	$17.00
S. C. & R. C. R. I. Reds	$4.75	$9.00	$18.00
White Wyandottes White Rocks Buff Rocks Anconas	$5.00	$10.00	$19.00
Black Minorcas Buff Orpingtons White Orpingtons	$5.50	$10.50	$21.00
Mixed Chicks or Broilers	$3.75	$6.75	$13.00
Light Brahmas	$8.75	$16.50	$30.00
Famous MOSS'S Jersey Black Giants	$11.00	$21.00	$40.00

June, July and August chicks 1 cent lower. By 500 or 1,000 of one variety, special discount allowed.
Hatching Eggs and Stock.—Whether your order is large or small, it will have the same careful attention. *Catalogue on request.* Immediate Delivery
ANTHONY H. MOSS, Morris Plains, New Jersey

30,000 Chicks weekly
for June, July and August

June, July and Aug.
Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:
S. C. White and Brown Leghorns.....10c each
Barred Rocks.....12c each
S. C. R. I. Reds and S. C. Black Minorcas.14c each
R. C. White Wyandottes.....14c each
Broiler Chicks (Heavy Breeds).....9c each
Broiler Chicks (Light Breeds).....8c each
Lots of 500.....½ cent per chick less
Lots of 1000.....1 cent per chick less
100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.
FINE CATALOG FREE
THE KEYSTONE HATCHERY - Richfield, Pa.
Members I. B. C. Association

Flemington Famous Chicks!
We are going to offer as A SPECIAL! 25,000 Day-Olds, from our selected matings, for June Delivery

	Per 100	Per 50	Per 25
S. C. W. Leghorns..	$10.50	$5.50	$3.00
Barred Rocks.....	15.00	8.00	4.50
R. I. Reds.....	16.00	8.50	5.00

We guarantee 100% live arrival, full count. Parcel post paid. Order at once; don't delay and be disappointed at such low prices for SELECTED STOCK. Send P. O. Money Order or Check in full remittance.
FLEMINGTON POULTRY FARMS & HATCHERY
Box 422, FLEMINGTON, N. J.

Strickler's Quality Chicks
Hatches July 3-10-17-24-31
Large, heavy-type Barron English S. C. White Leghorns of superlative quality mated to pedigreed cockerels. Each pen headed by Lady Storrs' Pen Cockerel (Dams' records of 240 to 271 eggs each in pullet year). Highest quality vigorous chicks by special delivery parcel post prepaid, 100% safe and live delivery guaranteed, $10 per 100, $48 per 500, $95 per 1,000. Also husky pure-bred Barred Rock chicks, $12 per 100, $57 per 500.
LEONARD F. STRICKLER, Sheridan, Pa.

Chicks—Breeders—Eggs
S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.
TRY US AND BE SATISFIED
RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

BABY CHICKS Hatched by the best system of Incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 12c. each; White, Brown, Buff Leghorns, 10c. each; broilers, 7c. each. Pekin Ducklings, 30c. each.
Safe delivery guaranteed by prepaid parcel post
NUNDA POULTRY FARM NUNDA, N. Y.

BABY CHICKS We know how to produce strong, husky, liveable Chicks. High quality, moderate in price. Bar. Rocks, $14; Reds, $16; Barron White Leghorns, $12; Brown Leghorns, $13; Anconas, $21, Assorted, $10. Prepaid, full count.
Hummer's Poultry Plant, Frenchtown, N. J., R. 1

QUALITY BABY CHICKS
Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.
C. M. LORGENECKER, Box 40, Elizabethtown, Pa.

Free Catalog Land and Water Fowl, Chickens, Ducks, Geese, Turkeys, Guineas, Rabbits, Pigeons, Dogs, Stock and Eggs.
HOME STOCK FARM, SELLERSVILLE, PA.

CHIX Bar. Rocks, 11c; Reds, 12c; Wh. Leghorns, 9c; Mixed, 8c. 100% arrival guaranteed. Order from adv or circular free.
TWIN HATCHERY, McALISTERVILLE, PA.

LARGE STOCK fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams, Collies, Pigeons, Chicks, Stock, Eggs, low; catalog. PIONEER FARMS, Telford, Pennsylvania.

Promise Better Rail Service

Railroads Prepare to Move New Jersey Crops

WITH large fruit, potato and perishable vegetable crops in prospect, necessitating rapid transportation, New Jersey farmers were promised better freight service at a recent conference between marketing officials and railroad agents in Trenton, N. J. Assurance was given by representatives of the big transportation companies for more cars of proper type to move apples, peaches and truck crops from the central and southwestern sections of the State. Various cooperative associations as well as large independent growers in the State have been pressing the railroad companies for several years in order to secure a quicker distribution of highly perishable crops.

As brought out at the conference, the railroad men are urging more attention on the part of the grower to better grading and packing methods. Standard packages carefully packed with standard products carry through to destination in better condition and cut down the losses from growers' claims as well as enable the farmers to secure a more equitable price for their products.

Cooperation with the railroads in this way, officials claim, will permit a more rapid development of fast freight facilities. While weather conditions are beyond control of either shipper or transportation company, proper precaution in loading and proper equipment of the cars will do much to overcome the effect of the unfavorable weather, it was pointed out at the conference. The practice of some farmers of permitting potatoes to remain out in the sun after digging and just before loading, was condemned as a serious cause of loss in the past years.

Under the cooperative service agreement between the New Jersey marketing officials and the railroads, effort will be made to further eliminate transit delays and terminal obstacles, which have caused such troubles in recent years. Shipping-point inspection of staple fruits and vegetables instituted in New Jersey last year and very generally received by the growers, will be extended this year as fully as available personnel will permit. This inspection service is a national development of the program of standardization which New Jersey is seeking to carry out in common with other States and the Federal Government.

* * *

Officials of various farmers' markets throughout the State report considerable discussion within the year concerning the intrusion of hucksters who are competing with actual producers on these markets. Public opinion in official agricultural and marketing circles is to the point that hucksters desiring stands should be accommodated on separate markets. Consumers, when dealing in the markets at present, have no means of identifying farmers from hucksters, and housewives' leagues as well as organized growers believe that the farmers' markets should be devoted absolutely to the use of the growers themselves. The New Jersey cities, which lead in the farmers' marketing idea, require licenses for stands or space on the farmers' markets and will issue licenses only to bonafide producers.

* * *

High wages demanded by pickers in the big strawberry-producing counties of Cumberland, Atlantic, Burlington, Gloucester and Camden add 3 cents a quart to the cost of harvesting the crop which is now moving forward to markets in quantity. The cost of the quart box and the crate add another cent, while costs of transportation and marketing mean a further 1 to 3 cents cost to the producer. This means that the total cost of production and marketing is greater to strawberry growers in New Jersey this year than ever before. However, production per acre is heavy this year.

The crop of spinach this season is estimated as the biggest ever grown in the State, and takes its place among New Jersey's leading trucking crops. Rhubarb has likewise been a large crop.

* * *

The New Jersey State Board of Taxes and assessments recently announced the 1923 average tax rate at $3.561 per $100 of valuation, which is the same average rate as last year. The State Tax Board will use this rate in assessing the tax against first-class railroad property and against the gross receipts of street railways, gas and electric companies.—W. H. B.

NEW JERSEY FRUIT NOTES

Mercer Co.—Apples, peaches and pears are well set with fruit. Potatoes are coming up unevenly. In general, conditions have been all that could be desired.

Sussex Co.—The amount of damage done to the peach crop by recent frosts could not be determined until the June drop is over. The buds appear to be in excellent condition.

PENNSYLVANIA FARM ACTIVITIES

The Pennsylvania State Department of Agriculture is conducting inquiries among farmers, county agents, bankers, crop correspondents, and other competent authorities in the State to determine the factors responsible for the agricultural situation in Pennsylvania. Secretary Frank P. Willitts of the department is making a comprehensive survey by means of questionnaires, by which means he hopes to bring together a mass of facts and figures upon which a more comprehensive agricultural program in the State may be based.

The department is endeavoring to have at its command figures which will show the variation between farm wages and industrial wages, with which the farmer must compete in each section of the State. It is also working for information to show the comparative cost of farm machinery and equipment during the current year and in the last two Federal census years. The question of millage tax rates for county roads and school purposes in the same periods is also under consideration, while the assessed value of farm land in relation to its market value will be figured out for 1910 and 1922.

* * *

Agricultural organizations in Pennsylvania have been called upon to prevent a proposed increase by the Legislature to motor truck business. A bill was recently pending in the Legislature to this effect. It would also require drivers to buy licenses. Various hearings have already been held.

* * *

A recent survey shows that 38 per cent of the Pennsylvania farmers now have gas engines on their farms other than those used in automobiles, motor trucks or tractors. This is an increase of 4,250 gas engines reported on farms in the State within the last year; the total estimate is 78,600 gas engines now on farms.

* * *

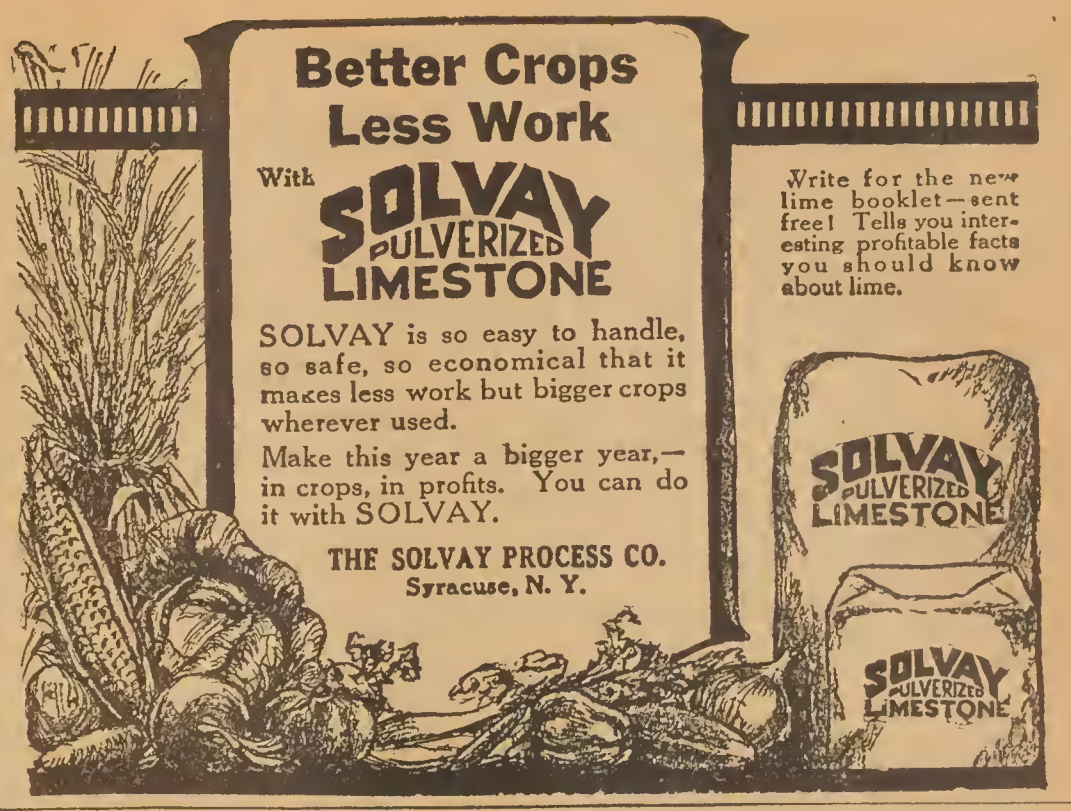
After June 19 wholesalers and retailers can no longer manufacture, sell or exchange filled milk. The 90 days of grace allowed to dealers to dispose of stocks on hand expires on that date. The State authorities have issued a warning to this effect and signify their intention of prosecuting violators, so that the general health of consumers and the dairy industry shall receive the full protection granted under the law.

Since the filled milk legislation went into effect last year, condensed milk manufacturers have been flooding the markets with skim milk products, largely offered to the public in packages so closely resembling whole milk products as to be deceptive.

* * *

Another legislative measure of particular interest to eastern Pennsylvania growers would appropriate $50,000 for quarantining the districts along the Delaware River which are infested by the Japanese beetle. The Pennsylvania State Horticultural Society, leading fruit growers and some of the eastern Pennsylvania farm organizations have been actively backing the measure.

If it is farm news, you will see it in the American Agriculturist.



VEGETABLE PLANTS ALL VARIETIES OF FOLLOWING PLANTS READY NOW

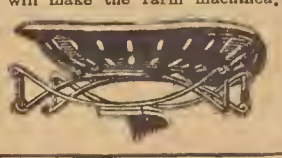
Potted Tomatoes, Asters and Scarlet Sage: $3.50 per 100; $30.00 per 1,000. 5,000,000 Cabbage and Tomato Plants (Field Grown) $2.25 per 1,000; 5,000, $10.00; 500, $1.50. Cauliflower (Field Grown) Snowball $4.50 per 1,000. Transplanted Tomatoes, $8.00 per 1,000; $1.00 per 100.

Cash with Order. Send for List of All Plants.

P. FORD ROCHELLE, Mendham Road, Morristown, New Jersey

The "E-Z" SHOCK ABSORBING SEAT SPRING

will make the farm machines, TRACTORS, etc., ride EASY. Why shake your daylights out when you can ride comfortably? Quickly changed from one machine to another. Will last a lifetime. Sent by Parcel Post. Write for circular.



GEO. J. KRUM, Old Chatham, N. Y.

THIS IS *YOUR* MARKET PLACE

Classified Advertising Rates

ADVERTISEMENTS are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word each initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." counts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

THE American Agriculturist accepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

EVERY week the American Agriculturist reaches over 120,000 farmers in New York, New Jersey, Pennsylvania and adjacent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the second Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS—BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chicks and eggs by our advertisers, and the hatching of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

JERSEY BLACK GIANTS—Large birds, yellow skin, descendants of originators. Eggs, also 6 to 12 weeks old chicks. Write for Giant history and prices. Stamp appreciated. SUNFLOWER POULTRY YARDS, Box A, Oceanport, N. J.

CHICKS—White Wyandottes; S. C. White Leghorns. Pure-bred stock. 100% delivery guaranteed. Can make immediate shipment on Leghorns. Wyandottes $13. Leghorns $10 per hundred. ULSH POULTRY FARM, Port Trevorton, Pa.

500 LEGHORN CHICKS, July 10th, from vigorous, production bred stock, 250-egg strain, large fowls, 95 per cent chalk-white eggs. Quick growing hustlers. Lay at 4½ months. E. COYLE, Branchport, N. Y.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpaid; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

BARRON WHITE LEGHORNS, 303-egg strain. Chicks, $9.50 per 100. Immediate delivery. Pullets, hens. Not a hatchery. MAPLE ACRES FARM, Tiffin, O.

RING-NECK PHEASANT EGGS—$3 per 15. Postpaid. JOHN LEWIS, Okolona, Ohio.

SEEDS AND NURSERY STOCKS

MILLIONS OF CELERY AND CABBAGE Plants, $2.50 per 1,000. Over 5,000 at $2 per 1,000. Special prices on large orders. Early Snow-ball Cauliflower plants, $3.50 per 1,000 straight. WELLS M. DODDS, North Rose, N. Y.

CABBAGE, CELERY — Ready for field, $1.25 per 1,000; beet, onion, lettuce, strong plants, $1 per 1,000; tomato, all kinds, $2 per 1,000; cauliflower, peppers, egg plants, $3 per 1,000. Send for list. J. C. SCHMIDT, Bristol, Pa.

FOR SALE—Early Copenhagen market and Danish cabbage plants from treated seed; $2 per 1,000. C. J. STAFFORD, Route 3, Tel., Cortland, N. Y.

MILLIONS of Cabbage and Tomato Plants; all leading varieties; 1,000—$2; 500—$1.25. Postpaid. J. H. SCOTT, Franklin, Va.

DOGS AND PET STOCK

FARM DOG—English Shepherds; pups and drivers. Natural instinct to handle cattle. Credit given if requested. Nine litters ready now. W. W. NORTON, Ogdensburg, N. Y.

BEES

HONEY, finest quality clover, 5 lbs., $1.10; 10 lbs., $2; buckwheat $1 and $1.75; postpaid. M. BALLARD, Roxbury, N. Y.

HELP WANTED

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, Mo., immediately.

CATTLE

REGISTERED AYRSHIRES—We have priced for immediate sale, our entire herd of pure-bred Ayrshires, consisting of our fine herd sire, Cacapon Prince No. 28423, and fifteen choice cows and heifers. We have never had a reactor. ARDEN HILL FARMS, Alfred Station, Allegany Co., N. Y.

ORCHARD GROVE MILKING SHORTHORNS. Two young heifer calves, attractive prices. Dams, 12 and 16 years old, our best producers. Sire, Baron Clay. L. R. HOTCHKISS, West Springfield, Erie Co., Pa.

FOR SALE — Milking Shorthorn Heifers (yearlings and calves), at farmers' prices. Herd Federal tested. ERNEST COTTRELL, Hoosick Falls, N. Y.

SWINE

REGISTERED DUROC WEANED PIGS—$10, either sex, including papers, crating, delivering. Quick-growing husky rascals. CHAS. MEARSON, Weedsport, N. Y.

REGISTERED O. I. C.'S — Service boars, bred gilts, spring pigs; priced to sell. Satisfaction guaranteed. GEO. N. RUPRACHT, Mallory, N. Y.

PIGS! PIGS! PIGS! — The best registered Chester White, 8 weeks old. Satisfaction guaranteed. $10 each prepaid. CLARENCE BEY, Clarington, Ohio.

FOR SALE—Registered Chester White swine. Write your wants. J. A. BOAK & SONS, R. D. 4, New Castle, Pa.

TURKEYS

TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point, Ohio.

REAL ESTATE

WANTED—Farmer and family to operate my 110-acre farm, on share or rent. Pittsburgh markets. Must sacrifice. Apply fully. AMERICAN AGRICULTURIST, Box 304, 461 4th Avenue, New York City.

32 ACRES BELOW NORRISTOWN—Large meadow, orchard, barn, outbuildings, all kinds farm implements, hot and cold water in house; $9,000. P. O. Box 496, Norristown, Pa.

FARM WANTED — State road farm; only state how near railroad, church, school, town. Send time table. Write plain. J. A. PONGE, 8 164th Street, Jamaica, L. I., N. Y.

FEMALE HELP WANTED

WIDOW with a year old child wishes to find a nice home to work, in city or country, for elderly couple or widower. Salary not as important as home. Box 305, AMERICAN AGRICULTURIST, 461 Fourth Avenue, New York City.

MISCELLANEOUS

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

FOR SALE — An Ann Arbor No. 35 hay baler, in good order. Price, $2. SAM W. HORNBERGER, R. D. 1, Shamokin, Pa.

EXTENSION LADDERS, 23c ft.; three-leg fruit ladders, 0c ft. Freight paid. A. L. FERRIS, Inte ken, N. Y.

WHEN WR TING TO ADVERTISE 'S BE SURE TO MENTION *AMERICAN AGRICULTURIST*

Long News in Short Paragraphs

A NATIONAL Wheat Conference is called at Chicago for June 19 and 20. This conference will consist of representatives in agriculture, commerce, elevators, railroads, millers, bakers, retailers and all educational bodies connected with agriculture, together with many individuals interested in the economics of the marketing of wheat. The object of the conference is to obtain better prices for wheat by laying plans to create a larger consumers' demand. Among those calling the conference are: S. J. Lowell, Master of the National Grange; Aaron Sapiro, counsel in Agricultural Economics; O. E. Bradfute, President of the American Farm Bureau Federation; G. E. Chamberlain, United States Shipping Board; Royal S. Copeland, Senator from New York; Arthur Capper, Senator from Kansas; and the Governors of the States of Minnesota, Illinois, Kansas, Missouri, North Dakota, Ohio and Oklahoma.

* * *

Milk consumption is increasing. Milk for household purposes increased from 49 gallons per capita in 1921 to 50 gallons per capita in 1922, according to the United States Department of Agriculture. Consumption by city folks increased 2 gallons per capita, but lack of any increase in consumption in rural communities pulled down the average increase of the country as a whole to 1 gallon. There is a big increase in the consumption of milk in chocolate form, 100,000,000 pounds of whole milk being used for this purpose in 1922, as compared with 40,000,000 pounds in 1921. There was also some increase in the consumption of other by-products made from milk.

* * *

The New York City average price for New York State average run, colored and uncolored flats, American cheese for the month of May is 22.4375 cents per pound. The average price for 92 score butter is 41.9423 cents. These prices are used by the Dairymen's League Cooperative Association in determining the prices of butter and cheese for the general pool price for May.

The price for class 3 milk for the month of May, i. e., milk used chiefly by the manufacturers of condensed and evaporated milk, will be 1.895 cents for 3 per cent milk at the 201-210 mile zone.

* * *

The number of milch cows on farms January 1, 1923, is placed at 24,429,000 as compared with 24,082,000 cows on farms January 1, 1922. There are also about 1,250,000 cows in towns, making a total of 25,505,000 milch cows producing on the average of 4,020 pounds per cow, or 103,000,000,000 pounds of milk per year. The average production per cow in 1921 was 3,945 pounds. Therefore, while there is an increase in consumption of milk and other dairy products, there is also probably a greater increase, both in the number of animals and in the production per cow.

* * *

A recent investigation of the results from hoof and mouth disease in Denmark in 1920-1921 shows that practically all milch cows reported upon had been attacked by the disease and that the death rate averaged 2.5 per cent. The biggest loss was through the large decline in milk production. The same disease attacked 86.6 per cent of the hogs of which 22.8 per cent died.

* * *

The index of purchasing power of farm products stood at 70 in April as compared with 69 in March. The high cost of producing farm crops this season on account of higher farm wages together with other factors, gives some indication that the prices of farm products will be some higher this fall.

* * *

Experiments are being conducted in the Gypsy Moth infested area in New England to determine whether or not it is practical to spray fruit and other trees from an aeroplane or balloon rather than from the ground.

* * *

Wool prices in the nation ranged during the last of May from 35c in Wyoming to 55c a pound in California. The 55c grade in California was for strictly fine combing wool.

$1,000.00 INSURANCE FOR 50 CENTS

As a part of our broad policy of service to readers, we now offer you a $1,000 Travel Accident Policy for one year with a three-year subscription for *American Agriculturist* all for only $2.50—just 50 cents more than our special price for a three-year subscription alone.

You May Be Hurt or Killed In a Train or Auto Accident Tomorrow

Don't make the mistake of neglecting your family's financial welfare in case the unexpected accident comes to you. Is not your own peace of mind worth the small amount of our accident policy? You need protection. Tomorrow may be too late. Order one of these policies today.

This Tells You What the Policy Will Pay

The North American Accident Insurance Company will pay the following amounts, subject to the terms of the policy, for death or disability on a public carrier, due to its wrecking or disablement while the insured is riding as a fare-paying passenger, or due to the wrecking or disablement of any private horse-drawn or motor-driven vehicle on which insured may be riding or driving, or by being thrown therefrom.

Life One Thousand Dollars ($1,000.00)
Both Hands One Thousand Dollars ($1,000.00)
Both Feet One Thousand Dollars ($1,000.00)
Sight of Both Eyes One Thousand Dollars ($1,000.00)
One Hand and One Foot, One Thousand Dollars ($1,000.00)
Either Hand and Sight of One Eye, One Thousand Dollars ($1,000.00)
Either Foot and Sight of One Eye, One Thousand Dollars ($1,000.00)
Either Hand Five Hundred Dollars ($500.00)
Either Foot Five Hundred Dollars ($500.00)
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The Brown Mouse—*By Herbert Quick*

MORE interesting to a keen observer than the speeches, were the unusual things in the room itself. To be sure, there were on the blackboards exercises and outlines, of lessons in language, history, mathematics, geography and the like. But these were not the usual things taken from text-books. The problems in arithmetic were calculations as to the feeding value of various rations for live stock, records of laying hens and computation as to the excess of value in eggs produced over the cost of feed. Pinned to the wall were market reports on all sorts of farm products, and especially numerous were the statistics on the prices of cream and butter. There were files of farm papers piled about, and racks of agricultural bulletins. In one corner of the room was a typewriting machine, and in another a sewing machine. Parts of an old telephone were scattered about on the teacher's desk. A model of a piggery stood on a shelf, done in cardboard. Instead of the usual collection of text-books in the desk, there were hectograph copies of exercises, reading lessons, arithmetical tables and essays on various matters relating to agriculture, all of which were accounted for by two or three hand-made hectographs—a very fair sort of printing plant—lying on a table.

The members of the school board were there, looking on these evidences of innovation with wonder and more or less disfavor. Things were disorderly. The text-books recently adopted by the board against some popular protest had evidently been pitched, neck and crop, out of the school by the man whom Bonner had termed a dub. It was a sort of contempt for the powers that be.

Colonel Woodruff was in the chair. After the speechifying was over, and the stereotyped, though rather illogical, appeal had been made for voters of the one party to cast the straight ticket, and for those of the other faction to scratch, the colonel rose to adjourn the meeting.

Newton Bronson, safely concealed behind taller people, called out, "Jim Irwin! speech!"

There was a giggle, a slight sensation, and many voices joined in the call for the new schoolmaster.

Colonel Woodruff felt the unwisdom of ignoring the demand. Probably he relied upon Jim's discretion and expected a declination.

Jim arose, seedy and lank, and the voices ceased, save for another suppressed titter.

"I don't know," said Jim, "whether this call upon me is a joke or not. If it is, it isn't a practical one, for I can't talk. I don't care much about parties or politics. I don't know whether I'm a Democrat, a Republican or a Populist."

This caused a real sensation. The nerve of the fellow! Really, it must in justice be said, Jim was losing himself in a desire to tell his true feelings. He forgot all about Jennie and her candidacy—about everything except his real, true feelings. This proves that he was no politician.

"I don't see much in this county campaign that interests me," he went on—and Jennie Woodruff reddened, while her seasoned father covered his mouth with his hand to conceal a smile. "The politicians come out into the farming districts every campaign and get us hayseeds for anything they want. They give us clodhoppers the glad hand, a cheap cigar, and a cheaper smile after election;—and that's all. I know it, you all know it, they know it. I don't blame them so very much. The trouble is we don't ask them to do anything better. I want a new kind of rural school; but I don't see any prospect, no matter how this election goes, for any change in them. We in the Woodruff District will have to work out our own salvation. Our political ring never'll do anything but the old things. That's all—and I don't suppose I should have said as much as I have!"

There was stark silence for a moment when he sat down, and then as many cheers for Jim as for the principal speaker of the evening, cheers mingled with titters and catcalls. Jim felt a good deal as he had done when he knocked down Mr. Dilly's chauffeur—rather degraded and humiliated, as if he had made an ass of himself. And as he walked out of the door, the future county superintendent passed by him in high displeasure, and walked home with someone else.

Jim found the weather much colder than it had been while coming. He really needed an Eskimo's fur suit.

CHAPTER VII

THE NEW WINE

IN the little strip of forest which divided the sown land from the Iowa fields wandered two boys in earnest converse. From their backloads of steel-traps one of them might have been Frank Merriwell, and the other Dead-Shot Dick. However, though it was only mid-December, and the fur of all wild varmints was at its primest, they were bringing their traps into the settlements, instead of taking them afield. "The settlements" were represented by the ruinous dwelling of the Simmses, and the boy who resembled Frank Merriwell was Raymond Simms. The other, who was much more barbarously accoutered, whose overalls were fringed, who wore a cartridge belt, and carried hatchet, revolver, and a long knife with a deerfoot handle, and who so studiously looked like Dead-Shot Dick, was our old friend Newton Bronson. On the right, on the left, a few rods would have brought the boys out upon the levels of rich corn-fields, and in sight of the long rows of soft maples along the straight roads, and of the huge red barns. But here, they could be the Boy Trappers—a thin fringe of bushes and trees made of the little valley a forest to the imagination of the boys. Newton put down his load, and sat upon a stump to rest.

RAYMOND SIMMS was dimly conscious of a change in Newton since the day when they met and helped select Colonel Woodruff's next year's seed corn. Newton's mother had a mother's confidence that Newton was now a good boy, who had been led astray by other boys, but had reformed. Jim Irwin had a distinct feeling of optimism. Newton had quit tobacco and beer, casually stating to Jim that he was "in training." Since Jim had shown his ability to administer a knockout to that angry chauffeur, he seemed to this hobbledehoy peculiarly a proper person for athletic confidences. Newton's mind seemed gradually filling up with interests that displaced the psychological complex out of which oozed the bad stories and filthy allusion. Jim attributed much of this to the clear mountain atmosphere which surrounded Raymond Simms, the ignorant barbarian driven out of his native hills by a feud. Raymond was of the open spaces, and refused to hear fetid things that seemed out of place in them. But how could you have a fuss with a feller who knew all about trapping, who had seen a man shot, who had shot a bear, who had killed wild turkeys, who had trapped a hundred dollars' worth of furs in one winter, who knew the proper "sets" for all fur-bearing animals, and whom you liked, and who liked you?

As the reason for Newton's improvement in manner of living, Raymond, out of his own experience, would have had no hesitation in naming the school and the schoolmaster.

"I wouldn't go back on a friend," said Newton, seated on the stump with his traps at his feet.

"You got no call to talk thataway," replied the mountain boy. "How'm I goin' back on you?"

"We was goin' to trap all winter," asseverated Newton, "and next winter we were goin' up in the north woods together."

"You know," said Raymond somberly, "that we cain't run any trap line and do whut we got to do to he'p Mr. Jim."

Newton sat mute as one having no rejoinder.

"Mr. Jim," went on Raymond, "needs all the he'p every kid in this settlement kin give him. He's the best friend I ever had. I'm a pore ignerant boy, an' he teaches me how to do things that will make me something."

"Darn it all!" said Newton.

"You know," said Raymond, "that you'd think mahgty small of me, if I'd desert Mr. Jim Irwin."

"Well, then," replied Newton, seizing his traps and throwing them across his shoulder, "come on with the traps, and shut up! What'll we do when the school board gets Jennie Woodruff to revoke his certificate and make him quit teachin', hey?"

"Nobody'll eveh do that," said Raymond. "I'd set in the schoolhouse do' with my rifle and shoot anybody that'd come to th'ow Mr. Jim outen the school."

"Not in this country," said Newton. "This ain't a gun country."

"But it orto be either a justice kentry, or a gun kentry," replied the mountain boy. "It stands to reason it must be one 'r the otheh, Newton."

"No, it don't, neither," said Newton dogmatically.

"Why should they th'ow Mr. Jim outen the school?" inquired Raymond. "Ain't he teachin' us right?"

NEWTON explained for the tenth time that his father, Mr. Con Bonner and Mr. Haakon Peterson had not meant to hire Jim Irwin at all, but each had voted for him so that he might have one vote. Now, however, Jim had done so many things that no teacher was supposed to do, and had left undone so many things that teachers were bound by custom to perform, that Newton's father and Mr. Bonner and Mr. Peterson had made up up their minds that they would call upon him to resign, and if he wouldn't, they would "turn him out" in some way. And the best way, if they could do it, would be to induce County Superintendent Woodruff, who didn't like Jim since the speech he made at the political meeting, to revoke his certificate.

"What wrong's he done committed?" asked Raymond. "I don't know what teachers air supposed to do in this kentry, but Mr. Jim seems to be the only sure-enough teacher I ever see!"

"He don't teach out of the books the school board adopted," replied Newton.

"But he makes up better lessons," urged Raymond. "An' all the things we do in school, he'ps us make a livin'."

"He begins at eight in the mornin'," said Newton, "an' he has some of us there till half past five, and comes back in the evening. And every Saturday, some of the kids are doin' something at the schoolhouse."

"They don't pay him for overtime, do they?" queried Raymond. "Well, then, they orto, instid of turnin' him out!"

"Well, they'll turn him out!" prophesied Newton. "I'm havin' more fun in school than I ever—an' that's why I'm with you on this quittin' trapping—but they'll get Jim, all right!"

"I'm having something betteh'n fun," replied Raymond. "My pap has never understood this kentry, an' we-all has had bad times hyeh; but Mr. Jim an' I have studied out how I can make a betteh livin' next year—and pap says we kin go on the way Mr. Jim says. I'll work for Colonel Woodruff a part of the time, an' pap kin make corn in the biggest field. It seems we didn't do our work right last year—an' in a couple of years, with the increase of the hawgs, an' the land we kin get under plow. . . ."

RAYMOND was off on his pet dream of becoming something better than the oldest of the Simms tribe of outcasts—and Newton was subconsciously impressed by the fact that never for a moment did Raymond's plans fail to include the elevation with him of Calista and Jinnie and Buddy and Pap and Mam. It was taken for granted that the Simmses sank or swam together, whether their antagonists were poverty and ignorance, or their ancient foes, the Hobdays.

It was still an hour before nine—when the rural school traditionally "takes up"—when the boys had stored their traps in a shed at the Bronson home, and walked on to the schoolhouse. That rather scabby and weathered edifice was already humming with industry of a sort. Never had the attendance been so large or regular; and one of the reasons for sessions before nine and after four was the inability of the teacher to attend to the needs of his charges in the five and a half hours called "school hours."

This, however, was not the sole reason. It was the new sort of work which commanded the attention of Raymond and Newton as they entered. This morning, Jim had arranged in various sorts of dishes specimens of grain and grass seeds. By each was a card bearing the name of the farm from which one of the older boys or girls had brought it. "Wheat, Scotch Fife, from the farm of Columbus Smith." "Timothy, or Herd's Grass, from the farm of A. B. Talcott." "Alsike Clover, from the farm of B. B. Hamm." Each lot was in a small cloth bag which had been made by one of the little girls as a sewing exercise; and each card had been written as a lesson in penmanship by one of the younger pupils, and contained, in addition to the data above mentioned, heads under which to enter the number of grains of the seed examined, the number which grew, the percentage of viability, the number of alien seeds of weeds and other sorts, the names of these adulterants, the weight of true and vitalized, and of foul and alien and dead seeds, the value per bushel in the local market of the seeds under test, and the real market values of the samples, after dead seeds and alien matter had been subtracted.

"Now get busy, here," cried Jim Irwin. "We're late! Raymond, you've a quick eye—you count seeds—and you, Calista, and Mary Smith—and mind, next year's crop may depend on making no mistakes!"

"Mistakes!" scoffed Mary Smith, a dumpy girl of fourteen. "We don't make mistakes any more, teacher."

IT was a frolic, rather than a task. All had come with a perfect understanding that this early attendance was quite illegal, and not to be required of them—but they came.

"Newt," suggested Jim, "get busy on the percentage problems for that second class in arithmetic."

"Sure," said Newt. "Let's see . . . . Good seed is the base, and bad seed and dead seed the percentage—find the rate . . . . "

"Oh, you know!" said Jim. "Make them easy and plain and as many as you can get out—and be sure that you name the farm every pop!"

"Got you!" answered Newton, and in a fine frenzy went at the job of creating a text-book in arithmetic.

"Buddy," said Jim, patting the youngest Simms on the head, "you and Virginia can print the reading lessons this morning, can't you?"

"Yes, Mr. Jim," answered both McGeehee Simms and his sister cheerily. "Where's the copy?"

"Here," answered the teacher, handing each a typewritten sheet for use as the original from which the young mountaineers were to make hectograph copies, "and mind you make good copies! Bettina Hansen pretty nearly cried last night because she had to write them over so many times on the typewriter before she got them all right!"

The reading lesson was an article on corn condensed from a farm paper, and a selection from *Hiawatha*—the Indian-corn myth.

(*Continued on page* 513)

WHAT HAS HAPPENED?

JIM IRWIN, a field hand by force of circumstances, but conscious of an ability he has never been able to express, is elected school teacher by a fluke. He accepts because Jennie Woodruff said "humph!" when he told her his ambitions. Jim makes friends with the Simms family, mountaineers from Tennessee, and even rounds up Newton Bronson, a village problem, whose father is a member of the school board.

Jennie is running for County Superintendent, and Jim offends her by his lack of enthusiasm.

Dimes Make Dollars—So You Should Save the Dimes

Emma Gary Wallace Gives Six Ways of Saving — A Block for the Nursery Rhyme Quilt

PREPARE an efficient and inexpensive washing fluid by blending the following ingredients:

Soap, ½ pound; sodium carbonate, 1 pound; strong water of ammonia, 8 ounces; turpentine, 4 ounces; gasoline, 8 ounces; water enough to make 2 gallons.

Home-made soft soap is excellent. If not available, take any good grade of laundry soap, shave it, and melt in sufficient water to make a jelly. Take away from light or fire and stir in the gasoline. Dissolve the sodium carbonate in three pints of water. Add the ammonia and the turpentine. Mix the two solutions and finish with enough water to make the two gallons. Store in tightly corked jugs or bottles. Label plainly, "Easy Washing Fluid."

Use a tablespoonful of this to each pail of water in soaking clothes, and two tablespoonfuls to a pail in boiling them. This Easy Washing Fluid loosens dirt, and bleaches clothes so that they are much easier to wash and whiter when finished. Many mild stains are removed by this compound.

Save on Ammonia Bills

Every housewife knows how useful the ammonia bottle is. It keeps windows sparkling and clean; is valuable in cleaning of clothes; in the weekly care of the bathroom, and in keeping cut glass sparkling and bright.

Frequently ammonia is not used as freely as it might be because of its expense. Save by preparing it yourself. The following is a very desirable mixture:

Powdered Castile soap, 8 ounces; borax, 2 ounces; strong water of ammonia, 1 pint; water enough to make 1 gallon.

Heat part of the water and dissolve the soap and borax in it. Cool. Add the rest of the water and the strong ammonia. Bottle, cork tightly and label.

Save on Silver Cleaning Cream

Use either large-sized bottles with screw tops, or fruit jars. Have plenty of the silver-cleaning mixture on hand, and whenever a piece shows tarnish, clean it at once. This is easy if there is plenty of Cleaning Cream on hand, and a box in a convenient corner containing soft cloths and a polishing chamois.

Powdered whiting (sift if necessary), 2 ounces; precipitated chalk, 2 ounces; powdered Castile soap, 1 ounce; strong ammonia water, 2 ounces; spirits of camphor, 4 drams; water enough to make 1 pint.

Sift whiting and chalk together. Dissolve soap in some of the water. Stir in ammonia, and little by little, add whiting and chalk. Beat until perfectly smooth and well blended, adding the rest of the water as necessary. Lastly, stir in spirits of camphor. Keep covered to avoid evaporation.

A very little of this applied with a soft cloth will keep the silver bright. Remove the cream by washing with hot water, to which a few drops of household ammonia have been added. Dry with a soft cloth and polish with a chamois.

Save on Library Paste

Then there are children who delight to paste, or a housewife who likes to make scrap books, a wide-mouthed jar holding a pound or more may be obtained at the drug store. This should have a screw top.

The following Library Paste will keep sweet and smooth:

Cornstarch, 6 ounces; flour, 4 ounces; glycerine, 2 drams; salicylic acid, 2 drams; water, 1 quart; oil of cloves, 1 dram.

Blend the starch, the flour, and the salicylic acid together. Take enough of the water to stir into a smooth paste. Rub out all the lumps. Add the glycerine. Heat the rest of the water boiling hot and pour gradually upon the flour mass, stirring as it is added. Put over the fire and cook until smooth and thick. Be careful that it does not burn. Cook at least fifteen minutes or longer if a double boiler is used. Cool and add the oil of cloves. Stir in thoroughly. This will make about a quart of fine, smooth paste. Put part of it aside in a tightly covered receptacle in a cool place.

Save on Insect Depredations

If ants become troublesome, take one-half pound of borax, one-half ounce of powdered camphor, and one ounce of cloves. Mix by sifting together and scatter round their haunts. The druggist can powder the camphor by breaking it into small pieces and rubbing with a few drops of alcohol. This process cuts the gum.

Watch where the insects enter, for there is sure to be an opening or crack in floor or wall, and scatter the mixture about the entrance. Spirits of turpentine poured into such a crevice will help to drive them away.

If the ant colony can be located, it can be destroyed by pouring a kettle of boiling water over it, to which a handful of alum has been added, or the ant hill may be liberally sprinkled with powdered quicklime.

Save on Your Nutmeat Supplies

Where the family is fond of nut bread, nut salads, and such dishes, it is much cheaper to buy the nuts several pounds at a time. These should be kept in an air-tight container. Even so, parasites will sometimes infest the nutmeats, wasting quantities. Of course, if there are any eggs, they will hatch.

To keep the nutmeats free and fresh, take absorbent cotton about the size of a small walnut. Moisten with chloroform and lay this on a small piece of clean paper on top of the nutmeats. Close the cover and they will remain in the best of condition until used up.

Save on Rug Cleaning Bills

Mix one pint of ammonia water, or household ammonia, four ounces of denatured alcohol, two ounces of turpentine, and a pint of water. This will make 22 ounces of the carpet-cleaning fluid. Into each five-quart pail of hot water, put four ounces, or half a measuring cup of the fluid. Clean a square of the carpet, using a brush or clean cloth. Wipe dry with a second clean cloth. Change the water as often as it is soiled. Do not walk on the carpet or rug until dry. Before cleaning, the fabric should be swept, vacuumed, or beaten to remove the loose dust.

THE NURSERY QUILT

Here is one square from the nursery rhyme quilt which may be made, square by square, by the A. A. Baby's mother (or sister or aunt) for the A. A. Baby's bed. Make it of muslin or soft mulle, and it will be just the thing to throw over the youngest one during warm weather.

Transfer patterns come for twenty pictures. You stamp each picture on its own square with a hot iron, then, when all are embroidered, sew them together, or mount them on a background of cambric, lawn or any washable, wearable material.

The whole set of twenty transfers costs only 65c. The transfer patterns, to save expense, are in three large sheets, but can easily be cut apart. Rhymes go with the patterns, so that the children can learn them as you work the simple outlines.

The blocks represent, in their proper order, Mary and her Lamb; Hey diddle, diddle; See-saw; the Old Woman in a Basket; the Crooked Man; Barber, Barber; Queen of Hearts; Song of Sixpence; Primrose Hill; Tommy Tucker; The Piper's Son; Polly, Put the Kettle On; Ding-Dong Dell; Simple Simon; Three Blind Mice; Taffy; Goosey Gander; Curly Locks; A Dillar, A Dollar, and Blow, Wind, Blow.

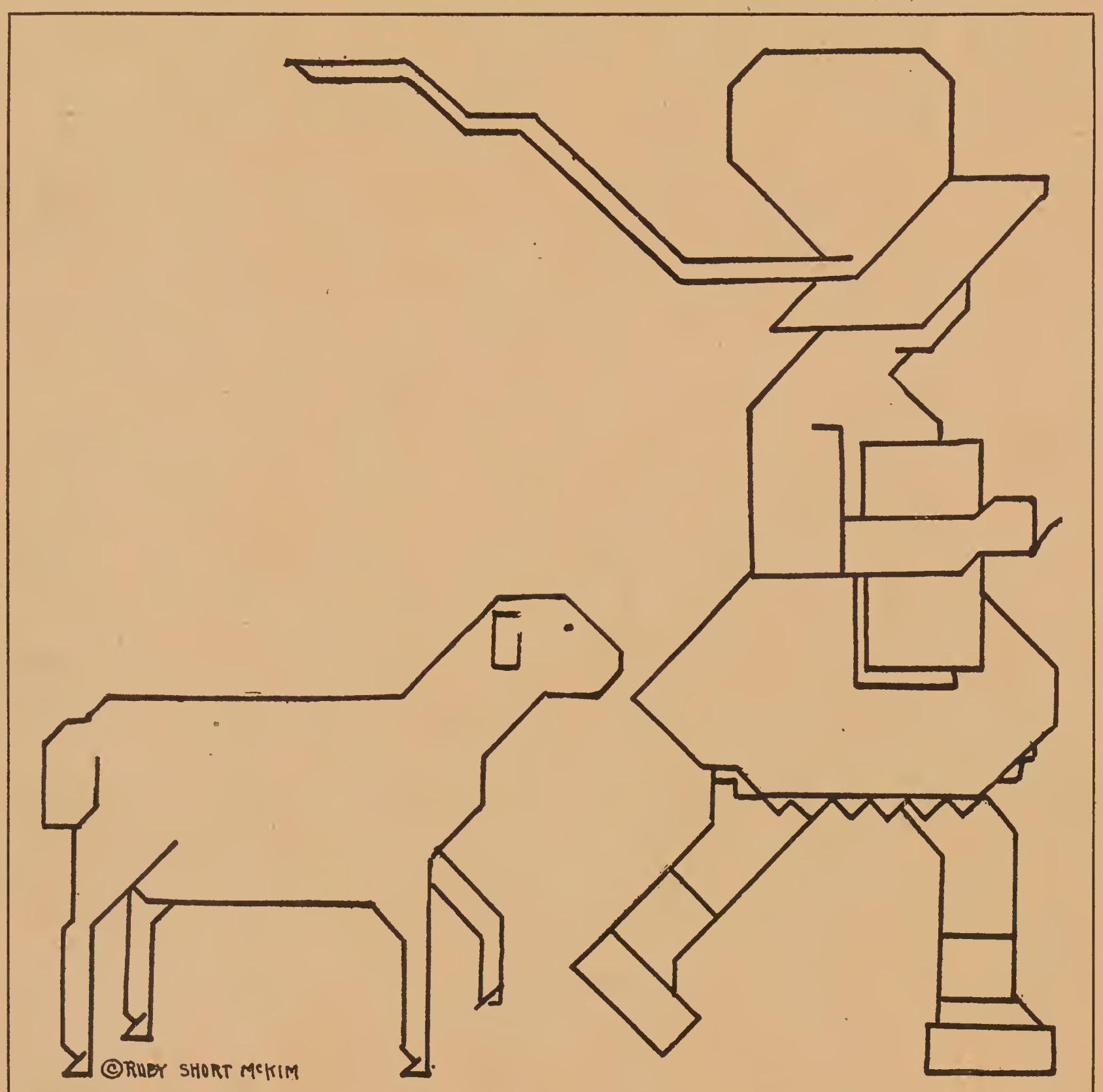
Send 65c for the set to **Embroidery Department**, American Agriculturist, 461 Fourth Ave., New York City.

WASH BEFORE YOU SEW

To tell how much a piece of material will shrink in laundering, use a piece about 3 or 4 inches square. Lay it on a paper and mark around it close to the edge. Then wash the square in warm, soapy water and hang it up to dry. Smooth it out as it dries. When it is dry place it on the picture you marked of it before and again draw around it. You can now see how much it has lost in the washing. You can tell, too, whether or not there was much sizing or starch in your piece. If it is much thinner and looser than before washing it would not be good material to use for a dress or other garment.

One small pane of window glass will keep pages of the cook book clean.

NURSERY RHYME QUILT, BLOCK NUMBER 1



Mary had a little lamb
Its fleece was white as snow;
And every place that Mary went,
The lamb was sure to go.

Here's Mary, going to school, books under her arm. The lamb is so close behind that when Mary gets to be a quilt block, Mr. Lamb will be on too. You know, "every place that Mary went,"—so here they both go onto a muslin block to start that new quilt.

Mary and her lamb, together with the nineteen other blocks representing favorite nursery rhymes, are easily transferred from the patterns onto muslin blocks, and thus make a light, pretty quilt. The entire set, together with the rhymes for each, sells for only 65c.

Money Making Schemes That Work

Our Weekly Patterns—Cooking Suggestions—A Word For Mothers

IF you are an expert at crochet, why not place an "ad" in your local paper to that effect, stating your prices. A friend of mine who sells all kinds of crochet work has more orders than she can fill.

I live 80 miles from St. Louis; and this year, all the fresh eggs I have will go to private customers at 70 cents per dozen. I ship them in metal egg crates. The postage is six cents on a dozen eggs, within the first and second zones.

Just now my neighbors are receiving only thirty cents, and last summer, I actually received twelve cents. But never again! A neighbor of mine keeps pure-bred Rhode Island Red chickens. Last summer, she advertised her eggs for hatching purposes, at 75 cents for fifteen and some people actually ordered thirty dozen at a time. Her hens didn't lay fast enough to supply the demand. Pure bred poultry pays. This year, I am planning to raise pure-bred Rhode Island Red chickens and Narragansett Turkeys. Instead of selling either on the local market, it is my intention to advertise the young, as breeding stock, this fall.

Another money making scheme of mine, is the addressing of envelopes at home. The firm furnishes me envelopes and circulars. I mail them out, (postage only 1 cent) and I receive fifty cents on each order sent the firm, if the order has my name and address attached to the coupon that is on each blank.

Quilts are a Source of Revenue

I have an aunt who quilts in her spare time and she tells me she has more work than she has time to do. The customer furnishes the material, and she charges $2.50 per spool used. The usual cost is $5 00 as it takes about two spools of thread to make up the quilt.

Another lady, in an adjoining community is known as the "Home Nurse". She takes charge of maternity cases only and she comes one week before confinement and stays two weeks after. She does all the cooking, the house and laundry work, and looks after the mother and baby for a stated sum each week.

One of the high school girls here exhibited some fudge at the community fair this fall and it won first prize. During the holidays, she made and sold over one hundred and fifty pounds. : thirty cents a pound. Another neighbor of mine with a large family of boys, picked and sold over 100 gallons of blackberries at 50 cents per gallon for private town customers. The boys picked the berries and she delivered them.—PAULINE CARMEN.

TEST RUBBERS FOR CANNING

Old or poor canning rubbers can be detected, according to the specialists at Ithaca, and fruit and vegetables thus saved from spoiling, by two simple tests. Poor rubbers spoil more canned stuff than any other one cause, they say.

A good can rubber returns to its original shape after it has been stretched out by pulling like a rubber band. Neither will good live rubbers crack when they are folded double into the shape of a half circle.

Don't use any rubbers that won't withstand these tests for your fruits and vegetables if you expect them to keep well.

"HALF A MIND"

HELEN GREGG GREEN

We have all of us known the undecided mother, who first forbids her child to do something, and then yields to his pleadings. There is another sort too, who sees her child's fault, and often sighs. "I have half a mind to punish him severely for that"—but never does.

Half a mind! Therein lies the trouble with many mothers. When you're a half-a-mind mother, your children soon find it out and when they discover the fact, how your discipline will suffer!

What the Children Think of It

I recently overheard several boys talking. "Come on, let's go in swimming," James coaxed. Eddie grinned but shook his head, "Can't. Sorry! But Mom said, Not to-day."

"Aw shucks, Eddie, come on! Your mother'll forget. Mine usually does. Half the time she doesn't mean it."

"No, my mother won't," Eddie answered firmly. "She doesn't lay down the law very often, but believe me, Bo, when she does, she means it!"

"Oh well, I'm going. My mother said she would spank me if I did, but she won't. At least," hesitatingly, "I don't think she will. Sometimes she means what she says, and sometimes she doesn't." And off James shambled.

What a contrast between the mothers of these two boys, and how much better the effect of firmness.

I don't believe in nagging children; and I don't believe in giving perfunctory orders and rebukes every few minutes. But I most firmly do believe in meaning what you say, and having a good mind of your own.

Occasionally you will change your mind about something. In that case it is wise to explain to your boy or girl just why you did so. Your children will respect you more, and you will be a more successful parent if you are not the vacillating, half-a-mind type.

Crystallized Strawberries

Select the finest berries. Beat the whites of three eggs to a stiff froth; lay the fruit in the beaten egg and drain. Then beat again the part that drips off. Dip the berries one by one in finely powdered sugar and lay on a paper in a pan and place in a cool oven. When the icing is firm, pile on a plate and put in a cool place until served.—MRS. GEORGE GRAY.

Too Little Shortening

If your "sample" reveals the fact that you have not put enough shortening in your cookies, you may remedy the deficit by allowing plenty of melted shortening in the pan and turning the cookies over as you place them in it. By this method the danger of too much handling of your dough is avoided.—MRS. JOHN LAND.

The Brown Mouse

(*Continued from page* 511)

"We'll be careful, Mr. Jim," said Buddy.

Half past eight, and only half an hour until school would officially be called."

Newton Bronson was writing in aniline ink for the hectographs, such problems as these:

"If Mr. Ezra Bronson's seed wheat carries in each 250 grains, ten cockle grains, fifteen rye grains, twenty foxtail seeds, three iron-weed seeds, two wild oats grains, twenty-seven wild buckwheat seeds, one wild morning-glory seed, and eighteen lamb's quarter seeds, what percentage of the seeds sown is wheat, and what foul seed?"

"If in each 250 grains of wheat in Mr. Bronson's bins, 30 are cracked, dead or otherwise not capable of sprouting, what per cent of the seed sown will grow?"

"If the foul seed and dead wheat amount to one-eighth by weight of the mass, what did Mr. Bronson pay per bushel for the good wheat, if it cost him $1.10 in the bin, and what per cent did he lose by the adulterations and the poor wheat?"

Jim ran over these rapidly. "Your mathematics is good, Newton," said the schoolmaster, "but if you expect to pass in penmanship, you'll have to take more pains."

"How about the grammar?" asked Newton. "The writing is pretty bad, I'll own up."

(*Continued next week*)

TO KEEP YOUR NEEDLE BUSY THESE JUNE DAYS

THE diagram shows you how simple **No. 1772** is to make. A printed overblouse of cool voile or tub silk would be ideal in this style for everyday summer wear, or better use. Only 1½ yards of 36-inch material will be needed for the medium size.

No. 1772 cuts in sizes 16 years, 36, 38, 40 and 42 inches bust measure. **Price 12c.**

ANOTHER pretty overblouse to wear with your suit, or with one of the pleated skirts, now all the rage. **No. 1711** is also economical to make, taking 1¾ yards of 36-inch material for the medium size.

No. 1711 cuts in sizes 16 years, 36 and 40 inches bust measure. **Price 12c.**

THE woman of mature or full figure could not select a better style than **No. 1713** for house or porch wear. The neck line, pockets, cuffs and tied belt all help to give slenderizing lines.

No. 1713 cuts in sizes 36, 38, 40, 42, 44 and 46 inches. Size 36 requires 3⅜ yards of 36-inch material with ⅝ yard contrasting and 3¼ yards binding. **Price 12c.**

AN easy-to-make dress for summer wear is **No. 1703**, one of the popular long-waisted frocks which appear in all materials this year, but are especially appropriate for cottons.

No. 1703 comes in sizes 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 3⅝ yards of 36-inch material with ⅜ yard of contrasting. **Price 12c.**

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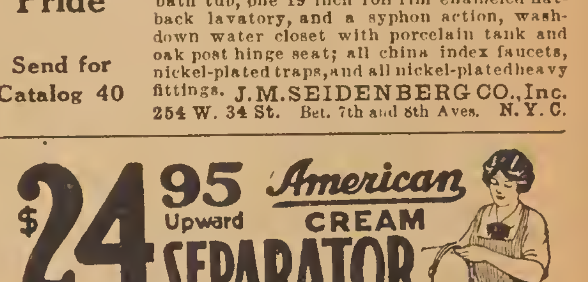

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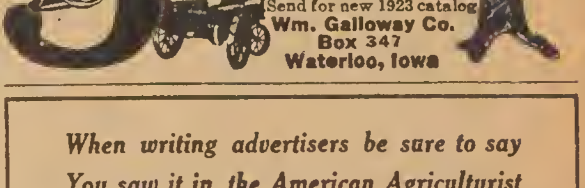

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Reviewing the Latest Eastern Markets and Prices

NEARBY VEGETABLES MORE PLENTIFUL

HERSCHEL H. JONES

SUPPLIES of fresh, green vegetables from Long Island and other nearby trucking sections are becoming increasingly plentiful in the New York farmers' markets. Lettuce, romaine and spinach constitute the bulk of present offerings, but a variety of other vegetables are included. Following were the farmer's market wholesale prices on June 7:

ASPARAGUS—Per dozen bunches, white, prime, best, $2.50 @ 2.75; fancy, few sales, $3; culls, $1 @ 1.25. BEETS —Per bunch, 7 @ 10c. BEET TOPS—Per crate (32 qts.), best, $1 @ 1.25; ordinary, 50 @ 75c. CARROTS—Per bunch, 5 @ 6c; fancy, large, 7 @ 8c. DILL—Small, per bunch, 1 @ 1½c. KOHLRABI — Per bunch, 4 @ 5c; fancy, large, 6c. LEEKS—Per bunch, best, 2¾ @ 3c; fancy, large, 2½ @ 4c; small, 2 @ 2½c. LETTUCE—Per slat barrel, best, $1.75 @ 2; fancy, $2.25 @ 2.50; fair, $1.25 @ 1.50; crates (32 qts.), best, $1 @ 1.25; fancy, $1.50; fair, 50 @ 75c. ONIONS—Spring, per bunch, best, 2¼ @ 2½c; fancy, young, 2¾ @ 3c. PARSLEY—Per bunch, curly, 2 @ 2½c. RADISHES—Per bunch, 2 @ 2½c; fancy, 2¾ @ 3c; ordinary, 1½c; white tip, 1½ @ 2c; fancy, 2¼ @ 2½c; white radishes, 2 @ 4c. RHUBARB—Per bunch, 2 @ 2½c; large, 2¾ @ 3c; fancy, few sales, 3½ @ 4c. ROMAINE —Per crate, best, $1; fancy, large, $1.25; small, 50 @ 75c; per slat barrel, $1.25 @ 1.50; fancy, large, $1.75 @ 2; ordinary, $1. SPINACH—Crates (32 qts.), 50 @ 75c. SPROUTS—Per slat barrel, 75c @ $1. WHITE TURNIPS —Per bunch, 3 @ 4c; few sales, 5c.

New Jersey lettuce in crates of 24 to 30 heads sold at $1.25 to $2 per crate. The first shipment of lettuce from Chester, Orange County, N, Y., received by truck last week, was of ordinary quality, leafy and not well bleached. It sold at $1.50 per crate of 24.

VEGETABLES IN BUFFALO

Supplies of nearby grown new vegetables in the Buffalo market are limited chiefly to lettuce, green onions, radishes, rhubarb, spinach and asparagus. Mt. Morris asparagus sold there at $4 to $4.50 per doz. bunches and 75c to $1 per bu. Homegrown red radishes, 15 @ 20c per doz. bunches; rhubarb, 25 @ 40c per doz. bunches; spinach, 40 @ 65c. bu.

STATE BERRIES COMING IN

Strawberries from Milton, N. Y., Ulster County and other nearby State sections first appeared in the New York market last week. The first Ulster berries sold at 15 to 25c per qt. The first Long Island berries brought 22c per qt. Germantown berries are expected about the middle of June.

Warm weather caused a wide range in quality of receipts, most of which came from New Jersey and Maryland. Poor berries sold as low as 8c per qt., but the market for fancy continued good at prices as high as 26 to 30c.

NEW POTATOES IN DEMAND

South Carolina continues to be the largest source for new potatoes, with over 150 cars being shipped daily to consuming centers throughout the country. In New York City there is a good demand for carefully graded new potatoes properly packed of the right quality. Prices range from $5.50 to $6.50 per bbl. for fancy cobblers, poorer $5 down, depending upon their condition.

WHITE EGG MARKET WEAK

The receipts of nearby white eggs continued considerable in excess of active demand last week. There is much more than enough to supply current needs and a decrease in the willingness of dealers to purchase for storage purposes is evident. The average ordinary qualities of nearby eggs are moving very slowly, and dealers generally seem willing to accept relatively low prices. The greater part of the miscellaneous receipts of small shipments were offered at a range of 28 to 32c, and the tendency toward the end of the week was for these average qualities not to exceed 29c, for the poorer qualities, lower. The latter part of last week Vineland shippers' eggs of extra quality could be had at 36 to 37c, and locally graded New Jersey eggs were offered at the same range.

In the four principal markets of the country, the U. S. Department of Agriculture reported 3,549,642 cases of eggs on hand in cold storage, June 7, compared with 4,015,333 on the same date last year. The quantity of eggs in storage in New York City at this time exceeds storage stocks last year on the same date by over 3,500 cases, but the storage stocks in Chicago are considerably lighter now than at the same time last year. The U. S. report for storage egg stocks in the entire country June 1 shows 243,000 cases less this year than last. The accumulations of eggs in warehouses have been gradually approaching the unprecedented quantity stored last year. The feeling has been growing, therefore, that a larger part of the current production during the remaining period, and abnormal surplus should be forced into current consumption. To accomplish this, prices would have to be lower and a publicity campaign carried on among consumers to stimulate a larger demand. Producers should seek as far as possible to increase consumption in their own local communities.

DAIRY PRODUCTS STEADY

In spite of considerably increased receipts of butter and an increasing supply of cheese, the wholesale prices for these products continue on a high level. The butter storage season is now in full swing. Nearly 1,000,000 lbs. were put into local warehouses last week, and the movement to cold storage is at the rate of 200,000 to 300,000 lbs. per day. The quality is excellent, but speculative buyers are inclined to buy moderately in expectation of declines.

Creamery extras, 92 score, continued at 38½ to 38¾c per lb., the same price quoted last week, compared with 35 to 35½c per lb. on the same date last year.

American cheese, State whole milk flats, fresh average run, continue at 22½c per lb., and held, average run, at 28 to 28½c, compared with prices on the same date last year of 17½ to 18c for fresh average run.

BROILERS HIGH—FOWLS LOW

The hot weather last week reduced the demand for fowls, but caused an active market for broilers. In spite of liberal supply of express broilers they sold well at steady prices. Colored extra large, 55c; colored average 50 @ 52c; colored small 45 @ 48c; White Leghorn fancy large 48 @ 50c; White Leghorn average 40 @ 45c; White Leghorn small 25 @ 35c. There is always an especially strong demand for broilers immediately preceding the July 4, holiday.

Express fowls sold at 23 to 24c per lb.

LIGHT DEMAND FOR CALVES

Calves both live and country dressed were weak and sold at irregular prices, due to hot weather. Dressed calves deteriorated rapidly and to be sold at any price. Live calves dropped to $7.50 @ 10 per cwt. for common to medium, and $11.25 @ 11.50 for prime. Spring lambs, live, sold June 7, per cwt., at: prime, $16.50 @ 16.75; common to good, $12 @ 16.25; culls, $10.50 @ 11.50.

HAY MARKET DULL

There was very little change in New York Hay Market last week. Prices continue about the same with the usual shortage of No. 1 hay and liberal supply of all grades of No. 2 down. Boat receipts have added to the supply of undergrades and these have moved very slowly. The reports from principal hay producing counties up-State are unfavorable for the new crop and consequently there is some tendency to hold the old crop hay.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on June 7:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	38@40	......	......
Other hennery whites, extras	36@37	......	......
Extra firsts	30@32	28@29	28
Firsts	28@29	......	25
Gathered, whites, first to extra firsts	28@31	......	......
Lower grades	26½@27½	......	......
Hennery browns, extras	33@35	......	......
Gathered browns and mixed colors, extras	29@32	27@28	......
Pullets No. 1	27@29	......	......
Butter (cents per pound)			
Creamery (salted) high score	39¼@39¾	42@43	......
Extra (92 score)	38½@38¾	40@41	39
State dairy (salted), finest	38@38½	39@40	......
Good to prime	37@37½	32@38	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$24@25	$20@21	$21@22
Timothy No. 3	21@23	......	19@20
Timothy Sample	13@18	......	......
Fancy light clover mixed	25@26	......	21@22
Alfalfa, second cutting	28@29	......	......
Oat straw No. 1	10	......	15.50@16
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	24@25	26@27	27@28
Fowls, leghorns and poor	......	24@25	25@26
Broilers, colored fancy	50@55	45	56@58
Broilers, leghorn	35@45	38	......
Live Stock (cents per pound)			
Calves, good to medium	9@11	4@11	......
Bulls, common to good	4@4¾	......	......
Lambs, common to good	10@14	10@17	......
Sheep, common to good ewes	3@5½	......	......
Hogs, Yorkers	7½@7¾	7¾	......

NEW STATE REPORT ON FEEDS

Dairymen and poultrymen will be interested to know that the State Departmen of Farms and Markets began last week issuing a new weekly market letter on grain and feeds, which will be sent free to any farmer on application to the Department at Albany.

This new report translates primary market quotations into delivered prices per bushel or ton in various freight zones centering around Albany, Ogdensburg, Utica and Rochester, Syracuse and Buffalo.

With such information the farmer can check fairly accurately the prices charged him by his local feed dealer. A similar report is issued twice weekly in New Jersey by the New Jersey State Department of Agriculture at Trenton, giving quotations for various groups of shipping points in New Jersey. The New Jersey report is also sent free of charge on application.

The publication of such complete information as is contained in these State reports is impossible to the limited space available on this page. We, therefore, suggest that our readers apply to their respective State Departments for these reports.

The tendency in future prices of grain has been downward during the last two weeks. The market for feeds has been very dull; linseed meal and cottonseed meal were weak.

CASH GRAIN QUOTATIONS

Cash grain quotations June 7 were as follows:

New York: Corn, No. 2 yellow, $1.02½; No. 2 mixed, $1.02; oats, No. 2 white, 56c; No. 3 white, 54 @ 54½c; ordinary white clipped, 53½ @ 54½c.

Chicago: Wheat, No. 2 hard, $1.11; corn, No. 2 white, 84 @ 84½c; No. 1 yellow, 85c; No. 2 yellow, 85 @ 85¼c; oats, No. 1 white, 45¼ @ 45¾c; No. 2 white, 45 @ 45¾c; No. 3 white, 43½ @ 45½c; No. 4 white, 43¼ @ 44c; rye, 70½c; barley, 60 @ 68c.

MAPLE SYRUP MARKET SLOW

With warmer weather, the demand for maple syrup has become very slight. Commission sales at Buffalo are quoted at $1.50 to 1.75 per gal. for syrup and 16 @ 18c lb. for light sugar and 10 @ 13c lb. for dark. N. Y. City quotations in wholesale market are $1.65 @ 2 per gal. for best syrup and 20 @ 25c lb. on sugar in 1 lb. cakes.

RICHMOND, VA. GETS 1924 HOLSTEIN CONVENTION

"The annual meeting of the Holstein-Friesian Association of America held at Cleveland on June 6 showed the best spirit and was surrounded by the best atmosphere that I have ever seen at the national meeting," writes M. C. Bond, Secretary of the New York State Holstein-Friesian Association.

All of the officers of the association were reelected. The four directors whose terms of office expired this year were reelected. Judge Peasely of Connecticut was elected to take the place of W. D. Davidson of Avon, Pa., whose term expires in 1926.

At a meeting of the Board of Directors, the resignation of E. C. Schroeder of Minnesota was accepted. R. E. Chapin of Batavia, N. Y., was elected to take his place. Mr. Chapin is a director of the New York State Association, and is an enthusiastic worker for Holsteins, and, in fact, any progress in the dairy industry. Mr. Chapin owns a large herd, headed by the great bull, Colantha Johanna Lad VIII. With the appointment of Mr. Chapin, New York now has three members on the Board of Directors, the other members being H. B. Noyes of Kenwood and D. L. Armstrong of Watertown.

Battle Creek, Mich.; Des Moines, Ia., and Richmond, Va., competed for the 1924 convention. After considerable discussion Michigan withdrew and a vote of the delegates showed Richmond the choice. Therefore the 1924 meeting will be held in Virginia.

Approximately 500 attended the banquet. One of the features of the entertainment at the banquet was the new film developed by the Extension Service of the National Association on Cow Testing Association work.

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A Problem for the Women

Brought Out at Egg Meeting Conference at Chicago

FARM women are to have a part in the cooperative marketing movement. A conference to consider the marketing of eggs, the production of which has largely been in the hands of the farm wives, which was called by the cooperative marketing department of the American Farm Bureau Federation, was held May 28 in the Hotel Sherman, Chicago. Representatives from farm bureaus, extension service and home economic departments of agricultural colleges and State bureaus of markets of Illinois, Indiana, Michigan, New Jersey, New York, Iowa, Utah, Missouri, Alabama, Tennessee, Kentucky and Texas were present.

Recognizing the fact that the meeting held especial interest to the farm women, Mrs. W. C. Martin, chairman of the Home and Community Committee of the American Farm Bureau Federation, was nominated as chairman of the conference.

Too Long Considered Trivial

That the egg and poultry industry has too long been considered one of the trivial sources of farm income was the opinion of Mr. Walton Peteet, Director of Cooperative Marketing of the American Farm Bureau Federation, who opened the meeting.

Aaron Sapiro, cooperative counsel of the Farm Bureau, who has had a large share in the organization of the Pacific Coast egg marketing associations, told of the results accomplished by those organizations. With $10,000 capital and the owners of a million hens signed up for a period of three years, the farmers of Petaluma Valley, California, organized their cooperative marketing association. Almost to a man these growers had commercial flocks of White Leghorns, so that the standardization of flocks was unnecessary. The breeding of chicks was left to the few men who specialized in that line. The cooperative insisted that infertile eggs be produced, that regular collections and deliveries be made, that perfect grading be done, that attention be paid to the pack and that facilities for storing eggs during flush seasons be made available. The association deducts one cent a dozen for purchasing capital stock, plus the selling costs.

The association has extended its market across the continent to New York City, where Pacific Coast eggs have created a demand which pays a premium of from 2 to 4 cents a dozen over other fresh firsts in the market. This is in spite of the fact that Pacific Coast eggs are from 16 to 18 days old when they reach Eastern consumers. Because of the perfect grading and the reputation for fresh infertile eggs which they take care to retain, the trade is willing to pay that premium.

Denmark Represented

How Denmark, which has the oldest cooperative marketing associations, has met the problem of marketing eggs was discussed by Mr. C. L. Christenson, of the Bureau of Agricultural Economics, Washington, who has been studying cooperative marketing in Denmark for the last two years. Twenty per cent of the egg producers in that country are members of the marketing organization. They sign a contract with local organizations to deliver all their eggs to the organization for a period of years, and the locals have like contracts with the national organization which markets the deliveries. Most of the flocks are small ones of 75 to 150 hens, and the bulk of egg production comes from these small owners. During the last forty years Denmark has increased its egg exports eighteen times, until now it furnishes 45 per cent of the total egg imports of the British Isles.

In Missouri the Farmers' Association there has been marketing eggs cooperatively for five years, according to H. A. Cowden, of that organization. Their farmers are not on contract, but because of the better prices the association is able to get for the eggs, it has experienced little difficulty in getting eggs to sell. Educational campaigns on the commercial advantages of standardized flocks have been made possible by State appropriations and have aided the movement considerably. There are at present 7,000 members, and last year 2,000 carloads of eggs were handled by the association, an increase of 50 per cent over the year previous. Eight cold storage plants are maintained, so that all eggs are not dumped on the market during the spring flush season. Markets have been extended until now Missouri eggs are sold on both coasts.

The New Jersey Co-op

How a different kind of problem was solved by the New Jersey Cooperative Marketing Association was told by Mr. J. Wetsel, President of the Atlantic Coast Association, which has been in operation over a year. Each member paid a membership fee of $10 plus 10 cents per bird as working capital. Most of the flocks were commercial ones of White Leghorns, so that the product is fairly well standardized. A sales manager with offices in New York City handles the merchandising of the eggs which are sold to both wholesalers and retailers under the brand name of Jersey Laid. A selling cost of 2 cents per dozen is paid by the members.

With so many summer resorts and a special hotel trade available to the farmers, it often happened that they could get better prices for their eggs by selling them themselves than by selling through the pool. They are allowed to do this if they continue to pay their share of the overhead, the 2 cents per dozen. This open-pool method has kept the members satisfied as probably no other method would have done.

The New York Survey

Prof. James E. Rice, of the poultry department of the New York State College of Agriculture, told of a survey which is being conducted in New York State to see just what they have to work with. Not only commercial flocks, but every small farm flock is being included in the survey.

"One of the most important things we have learned about cooperative marketing is that we should proceed cautiously and base our procedure on known facts," said Mr. Rice. "This means that before organization for selling there should be organization for knowledge, i. e., to make a thorough study of the production and marketing situation in all states by poultry surveys. These will locate the sources of production and distribution, and will enable us to plan our campaigns on conservative lines. We may make greater speed by first thoroughly mapping out our course."

Recommendations that a general committee be selected to work out a plan for the marketing of eggs which would take into consideration the special needs of any particular State or section; which would provide for local organization among owners of hens with State federation of these local organizations and a coordination between the State organizations in the marketing of eggs were approved by the conference. State organization committees are to be selected under whose direction campaigns to secure the support of the farmers and their families of this movement will be conducted. It was recommended that inasmuch as the marketing of eggs has heretofore been left, in a majority of cases, to the control of the women members of the farm families, that the women be given a dominant part in these campaigns.

Possibilities are Enormous

As pointed out by Mr. Peteet, there are no industries connected with agriculture which can compare with the possibilities of the egg industry. Successful cooperative egg marketing must be built upon quality and upon finding markets where there is both the demand for and the willingness to pay for that quality. In the majority of homes, where it has been the egg money, the pin money of the farmer's wife, which has bought the many little home comforts and conveniences, the egg marketing problem is a problem for the farm women to help solve. Women have watched the big crops of the farm organized for marketing. Their crop is next.

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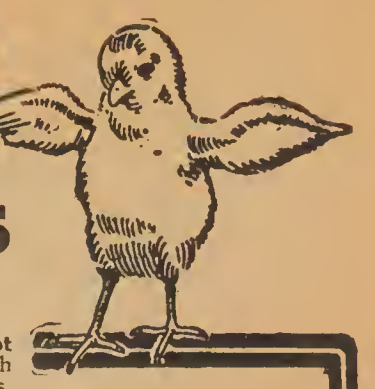

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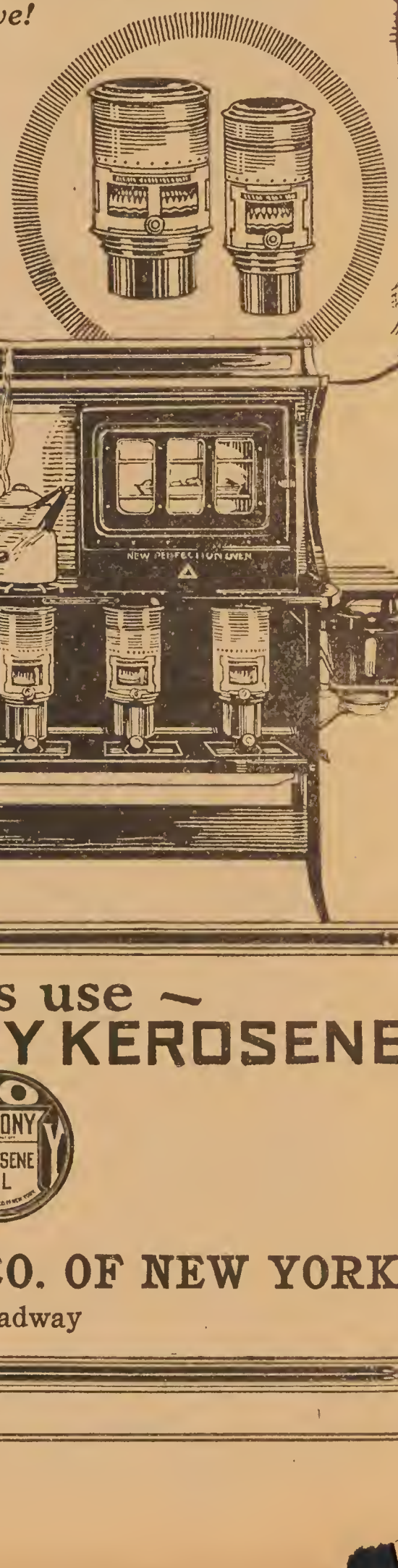

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AMERICAN AGRICULTURIST

Founded 1842

$1.00 PER YEAR | JUNE 23, 1923 | PUBLISHED WEEKLY

"A Million Miles From Nowhere"

A Plea For Better Understanding—By Jared Van Wagenen, Jr.

A Plea For Better Understanding

Between the Folk of the City and the Man on the Land—A Radio Message

By JARED VAN WAGENEN, JR.

I LIKE to think that in my audience this evening there will be a good many city folk and that I—a farmer—have the opportunity, through the courtesy of American Agriculturist and WEAF, of speaking to them, if not face to face, then at least by far flung word of mouth, and I covet this opportunity of putting into speech something of my ideas as to what ought to be the relationship of city and country folk. I want to try and let you know what we—my people—think of you and I want to bring to you some statement of our peculiar problems and difficulties.

"We deal with the rawest of raw materials, air and water and sunlight and crude plant food. We are dependent upon the benedictions of a kindly Providence, we are at the mercy of the untimely frost."

I am sure that there is nothing more essential than that we should come to know each other because acquaintanceship between any sort of worthy folk breeds understanding and regard and respect. One of the fine things that spring from education and from contact with the world, is a kindly spirit of tolerance and esteem between men of different modes of life. Only the foolish countryman pictures the city as made up of idlers and wastrels and snobs; and only the city man of low degree imagines that the typical farmer looks like a cartoon of Uncle Sam, who on all occasions wears chin whiskers and dirty boots, chews a straw, and whose conversation is made up mainly of such classic expletives as "By Heck" and "I vum."

Intelligent farmers refuse to believe that the city is a den of gentlemanly thieves whose main business and pastime is to rob and exploit the farmer. Nor does he believe that anywhere in America is there a great, far flung conspiracy against the man on the land. He is convinced that on the whole, everybody including the railroads, big business and even that fabled region Wall Street, wishes the farmer well. He sees in the Land Bank Act, the new Federal Credits System, the Fordney Tariff Bill and numberless other special agricultural enactments an earnest, sincere—but it must be confessed—often mistaken and ill-advised effort to help him along the road. I am speaking now of the attitude the farmer himself and not of some of his self-appointed leaders or of those who would hope to profit by his discontent.

The farmer is not a mendicant. He is not asking dole of charity, from government, or anybody else. He is asking only for understanding and sympathy rather than criticism and advice. He does ask recognition of the fact that certain not well understood economic forces for which he is not to blame, for which no one is really to blame, seems to have made his way especially hard just these years. We want you men of the city to know and realize that when the great business reaction came almost exactly three years ago, the farmer's business and the farmer's products were the first to slip. What mystifies him and perhaps discourages and angers him is that just now when in all other lines men talk much of abundant prosperity, he finds his purchasing powers only 69 per cent of pre-war days. This figure is not the vague estimate of some alarmist, but the official figures of the United States Department of Agriculture, based upon the index numbers of the things the farmer must buy and the things that he may sell. Farming, it is true, has measurably come back from 1920, but not nearly so far or so fast as other industries. This is a matter most vital to him and one concerning which he has a right to ask most earnest questions.

The farmer has demonstrated the fact that when his economic position permits, he is a most liberal purchaser of all commodities that go into his business and his home, thus constituting a most important prop under the general market. He serves notice now that the present much heralded business revival will not go on to permanency and its full fruition unless somehow he has an opportunity to ride along. He reads his daily paper just as you do, only after supper at night instead of at breakfast table or on the "L" or subway. Just these days he sees in glaring headlines that the bricklayers of New York are striking for $14 per day and a four day week. Then he remembers that only exceptionally skillful farming will permit a wage of thirty cents per hour. He does not therefore, however, proceed to vote the Socialist ticket or go Bolsheviki, but he surely cannot find it in his heart to greatly blame the hired man or even his own son when he decides, as one man put it, "to go and get a little piece of that easy money they give away every Friday noon." I wonder if you know that the old time "hired man" threatens to become an extinct species like the American buffalo or the Dodo bird. I read that there is an acute housing problem in nearly all cities, but it is estimated that there are somewhere between ten and twenty thousand good sized, comfortable, but of course not modern, farm houses vacant in our State. It is evident that in some respects things are economically out of joint.

I wonder if you folk of the cities know the peculiar handicap of the farm boy in the matter of education, and that the cross-roads, one-room schoolhouse is at once the most expensive and the most inefficient systerm of public education ever devised.

Oh, if I wanted to, I could make a long speech upon this mournful theme of the disadvantages of country living, but I am not accustomed to allow myself to dwell upon these things. I merely want to tell you city folks to-night that farming has its troubles. We deal with the rawest of raw materials, air and water and sunlight and crude plant food, and against these no government can lay an embargo or a protective tariff. In addition, the hazards of our business are unapproached by any other, for we are dependent upon the benedictions of a kindly Providence, "the early and the later rain," and we are at the mercy of the untimely frost.

But let me turn to brighter things. For example, I am proud of the fact that we have no strikes or lockouts or shutdowns—something of which perhaps no other business can boast. In the face of the most discouraging conditions we maintain production. I suppose this is the reason why, despite food shortage and suffering in certain quarters of the world there is almost a plethora of foodstuffs in all American cities.

Many otherwise well informed people have been led to believe that while the farmer may be virtuous and industrious and plodding, yet he is a wonderfully poor "business man"—in a word that he is sadly lacking in that overworked term "efficiency,"

(*Continued on page* 526)

We Carry Farm Problems to City Folks

A FARMER said to us the other day, "If only city folks could read the farm papers, what a lot more the farm press could accomplish." The farmer was right. One of the big problems of the day is a better understanding between country and city people.

This idea is one of the main reasons why American Agriculturist is cooperating with WEAF in furnishing at 6:50 P. M., standard time, every Wednesday evening, a farm radio program. This station has an audience of half a million people, a majority of whom are city folks, and we are taking to that great audience weekly, a discussion of many of the acute problems of the farm.

One of the very best of these talks right on this point of better understanding is that by Jared Van Wagenen, Jr., which is printed on this page and which was broadcast from WEAF Wednesday evening, June 20. Some of the good things we have in store for future Wednesday evenings at 6:50 are: June 27, Henry Morgenthau, Sr., ex-Ambassador to Turkey; July 11, Senator Nathan Straus, Jr., Chairman of the Agricultural Committee of the New York State Senate. On dates immediately following, we hope to have Commissioner Berne A. Pyrke of the New York State Department of Farms and Markets and F. P. Willits, formerly president of the Interstate Milk Producers' Association at Philadelphia, now Secretary of Agriculture of Pennsylvania. Tune in and then tell us how to make this farm program better.

"In the face of the most discouraging conditions, we maintain production. Despite food shortage and suffering in other quarters of the world, there is plenty of foodstuffs in all American cities."

AMERICAN AGRICULTURIST

FOR THE

Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

ORANGE JUDD & CO., PUBLISHERS AND PROPRIETORS. Office, 245 BROADWAY.

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ROAD MENDING.—*Drawn and Engraved for the American Agriculturist.*

In the above engraving is represented a scene of very common occurrence in the majority of country districts. Working out the road-tax is generally made an occasion for mingling a little work with a good deal of good-natured gossip, some politics, and much discussion as to the propriety of this way or that way of filling up a mud hole or repairing a ditch. If this should be looked upon in a way that would occur to a person of the amiable disposition of Mr. Gradgrind, he might object to such a method of doing business as far from economical, and as a waste of time. But Mr. Gradgrind was no farmer, and never worked out his tax. We have done so, and we know how much a man feels better all over after an hour's shoveling is followed by an equal amount of rest, and moreover it always turns out that the road-work is "done," even though it should need to be done over again in the same way next season. But yet it did sometimes occur to us that this was not quite the way in which work was done at home, and the question "Does this pay?" came up occasionally for consideration. We confess to thinking it did not, and still hold to that opinion, and have little doubt that in country road-making and mending, as well as in almost all other things, "old things are passing away." If there is one thing more than another in which we need to mend our ways it is in regard to our country roads. The better the roads the more valuable the farms alongside of them, and the greater the value of every pound of produce carted over them. This is true without a question. Then it becomes a serious matter to have roads built so that they may be easily passable, and be kept so without needing the annual outlay of several days' work to each farmer in repairing them.

THE above is an exact reproduction of the page of American Agriculturist of 1873, just a half century ago. There are in the American Agriculturist office, bound volumes of practically every issue that has been printed since the paper started in 1842, and the well-written articles make extremely interesting reading to-day. In looking through these old papers, one is impressed with the fact that farmers struggled with many of the same problems that still remain unsolved. One of them is too much human nature in road making. Times and customs may change, but human nature is about the same yesterday, to-day, and to-morrow.

Some progress has been made in road making, to be sure, especially along the main highways, but the improved roads we have, have cost altogether too much money; and when it comes to the dirt roads, the least said about them, the better. Mud and rock are scraped into the middle of them in the spring, as a usual thing, doing more damage than good.

What is needed to get better roads is a little less human nature like that so well depicted in the old picture, and a little more hard work mixed with some common sense. Then, perhaps, we might have some dirt roads that would go far to help solve the marketing problems of the farmers who have to live on them.—THE EDITORS.

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

Founded 1842

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Commencement

THE monarchs and aristocracy of olden times used every means within their power to prevent the common folks from getting an education. Well they knew that a continuance of their own power depended entirely upon their being able to maintain an ignorant peasantry. Education of the common people has been the one thing above all else that has destroyed the absolute monarchies of the world and given the people a degree of freedom never before realized. How well the fathers of our own country realized this when they established the common school in every community, and put the high schools and colleges within the reach of poor boys and girls. The last hundred years has seen an advance in the world's science and invention beyond the wildest imagination of our forefathers, all of which has been made possible by the inventive genius of educated and trained minds.

A speaker before the graduating class of Columbia University said the other day that the great achievements, of man in the field of action are as varied as life and as individual as the human spirit itself. "And these great works of man are in reality the results of education in its broader sense, acquired either within or without academic walls."

Yet in spite of all this there are a considerable number of people who do not believe in education and consistently and constantly oppose all steps for its support. There are even parents whose children get what education they have in spite of those who should be the first to lend them aid and encouragement.

Of course, it is perfectly possible to put a "thousand dollar education on a hundred dollar boy or girl"; and of course it is true also that an educated criminal is more dangerous to society than one without a trained mind. But it is also true that the great majority who march in the ranks of crime and vice are ignorant and illiterate. It is true, too, that one can be educated without going to school, but in this hurrying age, life is too short to get all of our training from our own experience; and, schools and books teach the experiences acquired by others down through the ages. He who is not willing to profit by the experiences of others is indeed a fool. They put us in contact with all that the past has achieved in music, in pictures, in science and literature. As a telescope opens to us a vista of an unlimited universe, and the microscope gives us a glimpse of another infinite world beyond the ordinary human vision, so does education open the human mind to contact and experiences which the ignorant and the untrained can never see, experience or enjoy.

As those who lived a half century or a century ago stood upon the threshold of a new and wonderful future in the world's history, so do our children, the citizens of to-morrow, stand at this commencement time at the beginning of a still more wonderful period of achievement in the world's civilization. To meet that future and do their part by themselves, their families and their fellow citizens, trained minds and hands are more necessary than ever before.

Therefore, this is indeed a "commencement" time. There are thousands of boys and girls just graduating from the grades and there are other thousands who are now finishing their high school courses. What larger or better help can parents give these children than sympathetic support and encouragement to continue in school, so as to best train the talents God has given them to render service to themselves and to their fellows?

A Good Sign

THERE is a cloud on the horizon of the present business prosperity. The New York Stock Exchange is very much unsettled with a very decided downward or bearish tendency all the way along the line. The Stock Exchange is the business barometer of the nation. Business men watch its tendencies very closely, well knowing that it is a very accurate indication of the future trend of all other business. It would seem, therefore, that there is to be some check to the present industrial boom. If the hold-up does not go too far, it may be a good thing.

The present prosperity is more or less fictitious, speculative and abnormal. Factories have been running almost day and night to manufacture, and the stores are all doing flourishing business, to sell too many things that people do not need. There has again been a too free use of credit. Thousands of people are driving automobiles that are not paid for.

We believe in reasonably high wages and prices, for when people have money to spend they buy products that farmers have for sale; but there is no question that wages in many trades are too high, resulting in abnormal prices. In short, the pendulum of business has again gone so far to the extreme that a little swing back to the normal will be a good thing for all concerned. In fact, if such reaction does not come soon, there is grave danger of another big depression with hard times for everybody.

A return of business conditions towards the normal is especially necessary for farmers. City prosperity has taken the farm labor and raised too high practically everything that the farmer has to buy, without helping much the prices of the farmers' products. A change downward, providing it does not swing too far, will not be likely to affect the farmers' sales and would help some to lower his costs of production.

Hazards of Farming

THE hill was steep, the wagon, of the old-fashioned, high-wheel, narrow tire type, and the big load of hay was narrow and high. Uncle Sam Farmer had loaded the hay on the level lot at the top of the hill, but when it came to driving it down to the barn, he asked Young Sam to climb up and do it.

"Nothin' doing," said Young Sam, "you loaded it, Dad, now it's your job to drive it to the barn."

"Boy," said the old man, "I saw four years of bloody fighting in the Sixties, I've had my horse shot from under me, and I've seen men drop like grain before a reaper on both sides of me, but I am most emphatically stating I'd rather take the risk of battle any day than drive this load of hay down that darned old mountain. Please, Sam get up here and let me get down."

Seeing that the old boy was really in earnest, Young Sam climbed on the load and drove it to the barn.

That night, after smoking and enjoying for awhile the quiet peace of the summer night, Uncle Sam spoke up from the dusk at the end of the porch where he was resting.

"Boy," said he, it's funny, isn't it, that farmers growl and groan so much about the weather or the dealers and everything else under the sun, but don't have a word to say about farmin' being such a dangerous business. But by Jinks, when you stop to think of it, I dunno but what I'd ruther work in a powder factory than on a farm.

"Only last week you know what happened to poor old Hank Taylor when he was leadin' that big bull of his. A roaring lion is safer any day than an ugly bull, and about all of them are ugly.

"It was only three or four months ago that George Smith was tryin' to patch the roof on his barn, lost his hold some way and has been laid up ever since. About every farmer in three has missin' fingers, lost in gittin' too close to cog wheels or buzz saws.

"What a vicious horse can't do to a man ain't worth mentionin', and some of these tractors, the horse's substitute, every once in a while has the nice little habit of rearin' up on its hind legs and falling over backwards, smashin' the life out of the poor devil who can't move quick enough to get out from under it. At hayin' time, there are forks to dodge and dislodged pulleys to look out for."

"And yes," interrupted Young Sam, "and big loads to drive down bad hills."

"You remember," continued the old man without apparently noticing the interruption, "Russ Davis at hayin' time a couple or three years ago, who was feeling so well from leetle too close attention to a case of beer that he fell clear off the mow and struck his head on the barn floor. When he got up, he said it fairly dazed him!

"At thrashin' time you've got to watch out that the belt don't knock you out, or the thrasher don't eat you. Knew a feller once who lost two legs before they could get him out of the cylinder.

"Even sheep are dangerous. Old Johnny Smith came over the hill some years back to shear sheep for Uncle George Carpenter. There was a barrel of cider in the cellar that the Missus hadn't got around to let out, and the old boys got to feelin' pretty good. They had the sheep shut up in the barn and they hopped and hollered around so much that the poor critters got kinda excited. Then when John wasn't lookin', George opened the barn door and drove the sheep all out on the run. As they went, they knocked John—who was settin' on a milk stool trying to shear a sheep—over, and the whole dum flock ran over him. It laid him up for three weeks and George's wife had to take care of him and board him.

"Yes, sir, if anyone should ask you, farmin' is a hazardous business. 'Bout time one of them safety fust campaigns struck the farm."

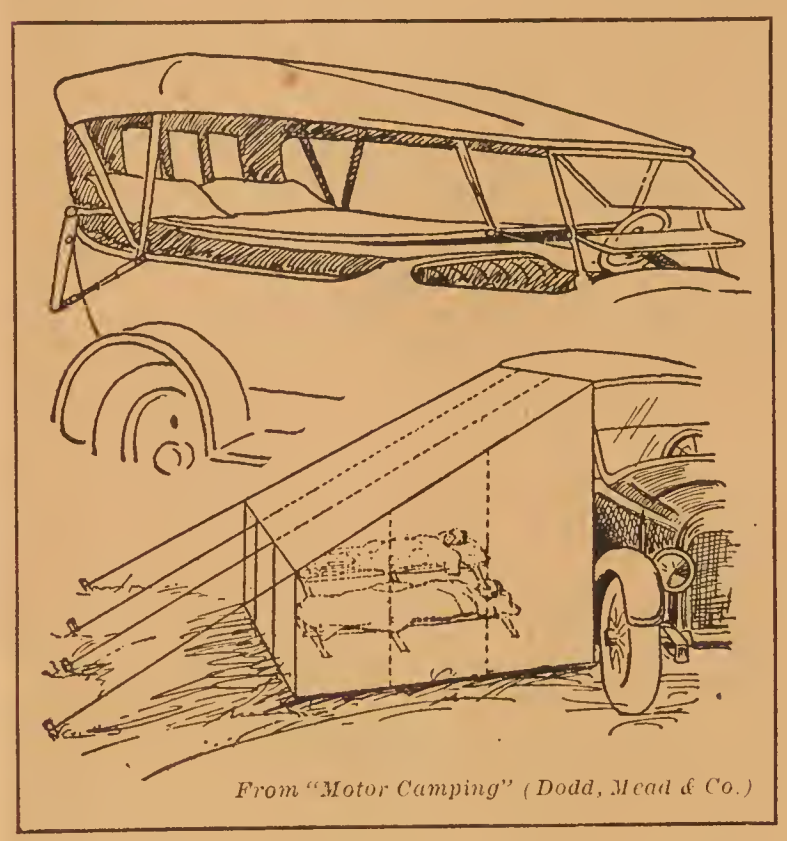
After all, life is like soda-water. Childhood, effervescence, corked down and wired; manhood, some sparkle, more vapidity; old age, empty bottle, cart it away with the rubbish.—T. W. ROBERTSON.

Why Not Go Camping With the Car?

An Inexpensive and Enjoyable Vacation For the Farm Family

IN the past, no people have had fewer vacations than farmers, and there are none that need a little rest and recreation more. One of the many good things that the automobile has brought is a chance for farm people to get away from the daily grind for a few days. Not only do they come back physically rested and refreshed, but they bring back with them many new ideas that come from their observations of improvements that other farmers have made—which makes the trip more than worth while from a financial standpoint.

Hundreds of thousands of American people go camping every year with their automobiles. Over half of these are farm people. There would be more who would do the same thing if they realized how easy and cheap it is to travel by car if they do not depend upon the hotels for sleeping and eating accommodations. Even if one cannot get away for more than two or three days by using a simple camping outfit, many trips can be made at small expense and with a large amount of enjoyment.



From "Motor Camping" (Dodd, Mead & Co.)

With the suspension bed (above) and the car curtains, it is possible to duplicate a fair tent. In the case of larger parties, tents serve a better purpose, being used in conjunction with the car

One of the best books that we have seen on the subject of camping is entitled "Motor Camping," written by J. C. and John D. Long, and published by Dodd, Mead and Company, New York City. Because so many farm people are interested in this subject, we are giving in this article a brief discussion on how to camp with the car and an outline of the simple equipment needed for eating and sleeping. We are indebted for most of our information to the above mentioned book.

The first principle to remember in motor camping is to travel light. There will be a tendency at first to pile the car full of too much equipment and to pack poorly. This will result in constant irritation, taking much of the pleasure out of the trip by causing so much trouble to take care of the stuff. All camping equipment should be purchased from the standpoint of packing it in small space, and if possible making it serve more than one purpose in the camp.

The first consideration is how rest there will be little fun in to sleep. If one cannot get good

Motor camping puts beautiful scenery within the reach of folks of moderate means

the trip. There are a number of different styles of beds that may be used inside of the car. In a Ford sedan, the seat backs fold forward and by setting up two suit cases or other suitable material alongside between the seats, a foundation may be laid, upon which blankets may be spread to form a comfortable bed.

Another device which may be used in the sedan is the "Foldaway Bed," which will fold when not in use into a bundle 4½" x 4', and weighs only fourteen pounds. A suitable bed for the Ford touring car is called the "McMillan Auto Bed," which may be purchased for about ten dollars, or less.

Another car bed is manufactured by the American Camp Equipment Company, which will fit any kind of a car, may be set up either in the car or out, and can be used in the tent or house. It is called the "Moto Bed" and will cost about twelve dollars. So much for sleeping in the car.

Sleeping in the Open or Tents

When the car is not used for sleeping, one can sleep on the ground with only a blanket between, or on small boughs, or in a sleeping bag; or best of all, on cots. Sleeping on the ground is not advised, for only an old-timer can get good rest in this way. Sleeping bags are rather expensive, but they are very handy and most people can get comfortable rest with them. Some folks get good rest in hammocks, but it usually takes several nights to get used to them, and many never get a comfortable sleep in them. It is difficult also with hammocks to guard against mosquitoes.

Most people who do not sleep in their cars use some one of the many different kinds of folding cots. A cot may be cold in cold weather, but if one has plenty of blankets to put under as well as over him, this can be guarded against.

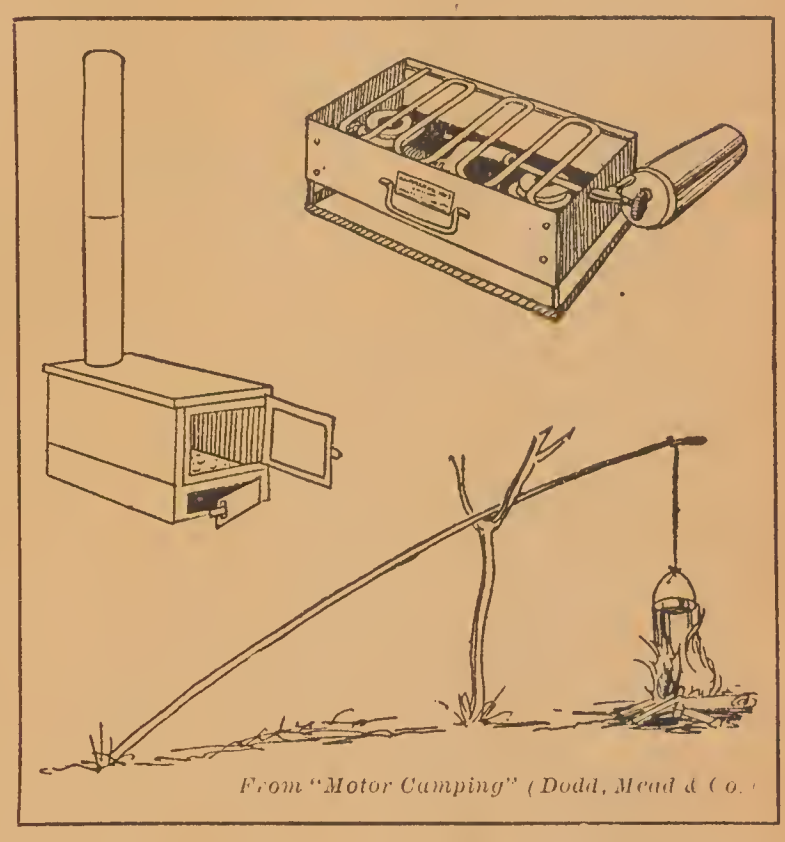
There are all kinds and varieties of tents which motorists can use, on the market. The varieties most commonly seen are those which hitch to the side of a car. Many of these use no poles, but are supported by ropes which fasten to the top of the car. They may be purchased for as low as $7.50 for 7' x 7' size. This particular tent is called "double service Moto-tent."

Another inexpensive tent that stands apart from the car is called the "Scout Featherweight Shelter Tent," which has a door at each end that can be opened or closed to shut the world out completely. A more elaborate tent for long trips is called the "Overland Trail Tent." This has a bed for two people, raised 15" from the floor. There are pockets in the side walls and a netting door sewed to the front wall. Such a tent is suitable for two people traveling very light on trips, making overnight stops. The whole outfit weighs only seventeen pounds and can be purchased for something like $14.

With whatever kind of tent or sleeping apparatus, great care must be taken to provide for keeping out annoying mosquitoes and other insects.

When it comes to bed and bedding, most people will be able to equip themselves fairly well from the home supplies. As bedding is apt to be bulky and difficult to carry, care should be taken to choose that which has the most warmth and requires the least space. Army blankets, which can be purchased at army stores, make very good camp bedding.

One of the good things about traveling and camping is the fine appetities that are gen-



From "Motor Camping" (Dodd, Mead & Co.)

Eating is one of the factors that must not be ignored. Healthy appetites and camping go hand in hand. Here are some convenient devices for cooking. The stove is collapsible

erated; that is, this is a good thing, provided there is plenty of good, wholesome, well-cooked food. Stopping at expensive hotels—and they are all expensive these days—is beyond the means of ordinary folks. Therefore, it comes down to a problem of cooking and serving one's own meals in the camp.

Mr. Long in his book says the average motor camper will find it convenient to provide himself with some sort of equipment for cooking his food and drink. "The simplest heating outfit is the 'Solidified Alcohol Kit.' These are not much good except for making tea, coffee or cocoa, or heating canned soup. They are especially handy for short week-end trips."

All camping outfit companies have various varieties of camping stoves. The simplest of these is the "Rush Stove" which will fold up flat when not in use, and costs about $5. It can be set up in ten minutes and will burn either coal or wood. Oil stoves are good, but are hard to carry. Mr. Long mentions one which is called the "Optimus Traveling and Camping Stove," which can be taken apart and packed in small space. Gasoline stoves are very effective, but they are also dangerous, unless used with great care. One of the best gasoline stoves is called the "Colorado Sure Meal Camp Stove." This stove can be opened up and

(*Continued on page* 523)

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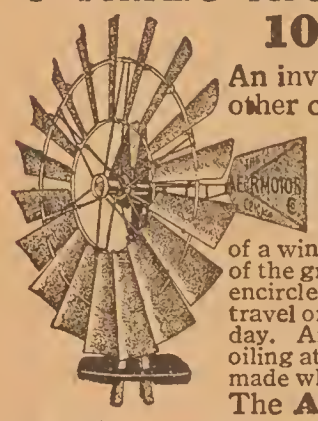

An inventor who could develop an automobile, a railroad car or any other conveyance on wheels which would perform such a feat would be considered a wonder. But such is the record of regular accomplishment by the Auto-oiled Aermotor during the past eight years in pumping water.

Did you ever stop to think how many revolutions the wheel of a windmill makes? If the wheel of an Aermotor should roll along the surface of the ground at the same speed that it makes when pumping water it would encircle the world in 90 days, or would go four times around in a year. It would travel on an average 275 miles per day or about 30 miles per hour for 9 hours each day. An automobile which keeps up that pace day after day needs a thorough oiling at least once a week. Isn't it marvelous, then, that a windmill has been made which will go 50 times as long as the best automobile with one oiling?

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Controlling Moisture

Vegetable Growers Are Increasing Overhead Irrigation

By PAUL WORK

As the value per acre of our crops increases, the amount at stake grows, and it becomes increasingly necessary to see that the limiting factor is not neglected. When we invest land and labor and equipment and supplies in expectation of a profitable crop, we can ill afford to see our outlay jeopardized through lack of a single essential item such as plant food or moisture. Dr. Warren says that the weather is the great factor in determining the yield of crops for a given year. Weather is not subject to human control, but the supply of moisture in the soil may be modified to such an extent as to mark the difference between success and failure. Such control is especially important with those vegetable crops which cannot wait for rain. If cabbage or field corn lack water early in the season, they can be brought through by late rains. Lettuce and early cabbage must have moisture at the right time or heavy loss is the result. Even the cannery crops with their less intensive cultural methods must mature promptly, or quality, as well as yield is sacrificed.

PAUL WORK

Intensive gardeners, in spite of the high cost of pipe and other materials, are increasing their areas under overhead irrigation. This is proving profitable, for it frequently happens that one thorough watering may save a crop and there is seldom a summer when there is not a dry month.

Control by moisture does not necessarily demand costly equipment. The part played by cultivation in retaining moisture is not quite so strongly emphasized as formerly, but humus content of the soil, time of plowing, and other soil management factors are of great importance.

There is need for careful study of western irrigation methods as applied in the East. Plans that involve leveling would not be practicable on our soils, but the advent of cheap and portable power should make it possible in many cases to lift water from streams and distribute it in furrows without developing the pressure that is necessary for overhead systems.

We Must Know Our Varieties

Fruit men know their varieties. Even the vegetable men who study the varieties the most diligently cannot know them well, for the standards are not established.

It makes a difference whether the grower of kraut cabbage plants Succession or Glory or Allhead Early. All three of these are used. Perhaps still more important is the strain of the variety chosen. There may be as much difference between Allhead from two different sources as between Allhead and Succession. One seed producer may select Succession for a flat head with as much solidity as he can get. Another may select for a deep head which will give the most and the best kraut cabbage per acre. This is a question that involves dollars.

Neither cabbage growers nor any of the other vegetable growers may expect to know what they are buying when they buy seeds until variety types have been carefully studied and until standard variety descriptions have been published and generally accepted.

Congress did well in killing the Congressional free seed appropriation, but the appropriation for studies of types and varieties of vegetables died with it.

By reason of its opportunity to study on a nation-wide basis, climatic and market requirements as well as varieties in use, the government is in a position of peculiar advantage for doing this work. The appropriations instead of being eliminated should be established on a basis that will bring results much more promptly than has been possible in the past.

The Vegetable Growers' Association of America has been interested for over a year in developing the idea of advertising vegetables. National campaigns of the type which has helped orange and raisin producers could hardly be carried out for the vegetable industry as a whole. The present movement contemplates offering to individuals and local associations a service that will help them in local advertising for their own territory.

The first step has been the preparation of an attractive illustrated two-color poster, promoting the use and canning of tomatoes. This is intended to help out with the annual glut which strikes practically every market about mid-season. It is to be available for this season and is intended as a feeler to test the demand for such service. Further possible developments include recipe books, "Eat Vegetables for Vitamins" signs for trucks and wagons, layouts for local newspaper advertising and such other items as may be required.

National Vegetable Meeting in Buffalo

New Yorkers will have an unusual opportunity to meet vegetable growers from all over when the Vegetable Growers' Association of America meets in Buffalo next September. The Albany meeting of 1921 was too far east for a truly representative gathering. Buffalo is almost ideally located.

Plans are already well under way for the meeting and an all-day trip about the Erie County producing territory will be a central feature. This will be of special interest to the general farm vegetable grower as the bulk of the crops are grown on a field scale rather than under the extremely intensive methods that are characteristic of most market garden sections adjoining large cities. Even the more intensive men about Buffalo are growing fewer crops on larger areas than formerly. Erie also produces great quantities to can and to ship as well as to sell locally.

Oswego Leads in Lettuce

The New York State Department of Farms and Markets reports a survey just made by it shows that Oswego leads all other New York counties in carlot shipments of lettuce last season. New York State shipped a total of 3,166 carloads of lettuce to city markets last year, between June and November. The height of the season was in August, when 1,006 cars were shipped.

In order of their importance, the following are the main carlot lettuce-shipping counties in the State: Oswego, Genesee, Wayne, Orleans, Livingston, Madison, Oneida, Monroe, Cattaraugus, Niagara, Chautauqua, Orange, Seneca, Cayuga and Onondaga.

FRUIT GROWERS TO MEET AT GENEVA

The New York State Horticultural Society, with a membership of several hundred prominent fruit growers scattered throughout Western New York and the Hudson River Valley, will hold its summer meeting on the grounds of the New York Agricultural Experiment Station at Geneva on Wednesday, August 1, according to a statement issued by Dr. R. W. Thatcher, director of the station, and a member of the program committee. The details of the program have not yet been worked out; but, as in the past, it is expected that tours of the station experimental plats, where dusting and spraying experiments for insects and diseases of fruits and vegetables are under way, will be a prominent feature of the day's activities.

A summer meeting of the society will also be held in the eastern part of the State later in the season.

In the last issue and also in many others which I have had occasion to read, I have found some very good things and lots of valuable pointers. —Leslie M. Merwin, Fillmore, N. Y.

Potato Growers at Syracuse

Fine Spirit Prevails at Annual Meeting

AN exceptionally fine spirit prevailed throughout the annual meeting of the Empire State Potato Growers' Association held in Syracuse, June 13, which incidently brought out some facts that potato growers may well seriously consider between now and marketing time next fall. There were three very concise factors brought out in Manager Steele's report that will materially affect the success of the organization this year. They are namely, volume of business, financing and local management. The report of Mr. Steele shows that the association could have handled several times the volume handled in the past without any increase in overhead. Obviously, during the past year the association did not operate most economically and a greater volume of business must be handled for the growers to realize a minimum expense for handling their crop.

Increasing in Membership

One of the outstanding features of Mr. Steele's report was that there was an increase in the number of locals during the year, bringing the total up to 30. This will increase the volume of business for the coming year. According to Mr. Steele, there is a much better demand for Empire potatoes and cabbage and the association could have sold several times the volume of Empire spuds handled because the buyers were satisfied with product the association is turning out.

Comparative potato sales showed that 89 per cent of the association sales netted from 2 cents to 32 cents per bag above those reported by the Rochester office of the Bureau of Markets. During the past two years Empire State potatoes and cabbages have been sold to 260 buyers in 23 States and 140 markets. An interesting item in the report is that $8.50 per thousand was the amount saved in pooling potato bag orders for the locals.

President K. C. Livermore in his address, representing the directors, reviewed the past two seasons' results and voiced the opinion that progress has been made. He reviewed the Rochester meeting of April 11, which was addressed by Aaron Sapiro, head of the legal department of American Federation of Farm Bureaus. Mr. Livermore stated that the directors had selected the State-wide organization committee which will take up the enlarged and State-wide potato and cabbage organization. The Sapiro plan of organizing potato and cabbage crops was received with unanimous approval.

Secretary-treasurer E. P. Smith rendered a financial report and read the auditor's report, which showed that all accounts of the association are satisfactory. Both reports were adopted.

Factors that Control Success

H. E. Babcock, general manager of the G-L-F Cooperation Association was one of the main speakers and gave an excellent talk on the factors that go to make cooperative organizations successful. He emphasized ample financing, trained and competent management, not only in central, but in the local associations, and volume of business as necessary to the success of the association. "To make these associations pay," he said: "there must be a volume of business. To get volume of business is costly. The G-L-F has increased its business recently and by so doing it has wiped out its deficit and made a start toward paying a dividend, but it cost heavily at first to get the business. To increase volume means that you must go after it, and a lot of hard work is needed. The present business of the G-L-F could be doubled with almost no increase in office space, stenographic help and general overhead. A good manager is needed in every local, and one must be had. To get and keep such a manager, volume of business is necessary. Capital is also a necessity and the three constitute the major portion of all the problems of the local association."

The association is planning to continue its business this year along somewhat the same lines as last year. However, efforts are being made to increase the volume of business. Last year 466 cars of potatoes were handled while arrangements had been completed for handling somewhat like 1,200. Of course the extremely low prices of last year was responsible for much of the farmer's produce not being shipped, which obviously cut down the amount the association could handle. For instance most of the cabbage grown by the members was fed to stock because the growers considered that it was worth more for feeding than could be realized on it when shipped to market. As soon as this situation was realized last year, expenses were cut down on all sides by the association, but it was too late to avoid a deficit which is being carried over to what the members hope will be a better year.

There are something like 50 growers present represented by 20 of the 30 locals of the central organization. Several of the locals were not only represented by delegates, but by several growers who were not delegates. There was a high degree of interest manifested in the meeting and from this enthusiasm one would readily infer that the association will not lack support this coming year.

Advocate California Plan

The organization plans which will follow the so-called California plans, were received enthusiastically. This will mean an entirely new membership list each with a $5 membership fee and the adoption of a pooling plan. Maine has already organized such an association enrolling 65 per cent of the growers of the State as members. It is not considered advisable with less than 50 per cent of the producers enrolled. Colorado, Minnesota, the Dakotas, Wisconsin and Michigan are already prepared to organize pooling associations. New York may also be considered in the list with the possible addition of New Jersey.

Three directors were elected at this meeting for a term of three years. One director was elected to take the place of J. A. Childs, resigned. The nominating committee appointed by President Livermore consisted of H. N. Kutschbach of Sherburne; William New of Wellsville and Fred Beecher of Earlville. The directors elected were Fred Hencle of Baldwinsville; H. L. Freeman of Marcellus and William New of Wellsville, all for three years each. G. P. Gregg was elected to fill the vacancy created by Mr. Child's resignation. The other directors who are carried over are: K. C. Livermore of Honeoye Falls; E. P. Smith of Sherburne; Datus Clarke of Peru; C. M. Hennis, Gainesville and F. E. Williams, Earville. The directors elected the following officers: K. C. Livermore, president; Fred Hencle, vice president; and E. P. Smith, secretary-treasurer.—H. H.

WESTERN NEW YORK BEAN CROP WELL CLEANED UP

According to bean dealers in Western New York, beans have never been so thoroughly cleaned up at this season of the year. According to "The Packer," they place total holdings at less than 150 cars, divided evenly between red kidney and pea beans. In view of this fact, it seems to be the sentiment of the trade that prices will continue firm, with a likelihood that they may advance before a new crop comes in.

Importations of Orientals may offset the scarcity yet. During the first week in June, quotations for hand-picked stock f. o. b. Rochester were: Red kidneys, $8; peas, $7.50; Yellow Eye, $8; marrow, $10, and medium, $7.50. The indications for the 1923 crop is that the acreage will be heavy if weather conditions are satisfactory. In view of the extreme shortage of labor, however, plantings may be reduced materially. Labor shortage will also have an effect when the factor of cultivation is taken into consideration.

The Robust pea bean is gaining in popularity in Western New York. It is said to be resistent to many of the common bean diseases, and has met increased favor. Although it does not come up to red kidneys in maximum yield, the average is probably better.

BROOKMEAD'S STARLIGHT, 73133, of Brookmead Farm, Devon, Pa. In two successive lactation periods she produced 32,107.5 lbs. milk, 1,621.42 lbs. fat—a record rarely equalled in the history of the breed.

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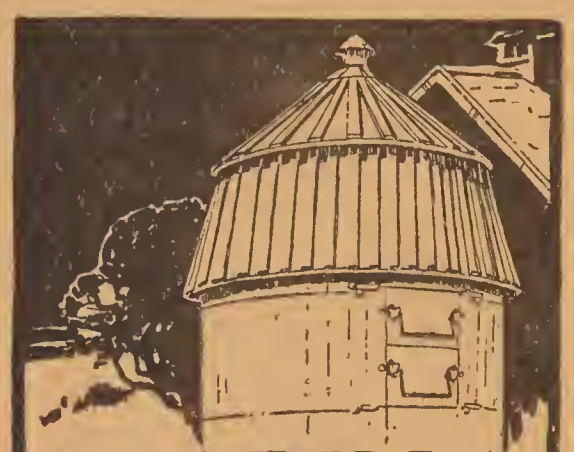

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Fruit Growers Hold Annual Meeting

Western New York Cooperative Reports Business Near $2,000,000 Mark

DECLARING that the "underlying principles of the organization are correct and sound," President H. W. Davis, in his address at the annual meeting of the Western New York Fruit Growers' Cooperative Packing Association, expressed the conviction and the spirit of the fruit growers of Western New York.

The meeting was held at Convention Hall, Rochester, on June 12, and despite good spraying weather, over 125 fruit men were present, representing all but three of the 40 local packing houses affiliated with the association.

"All agree," said President Davis, "that standardization of our fruit is absolutely necessary for the upbuilding of the industry, and that this can only be done through cooperative effort; all admit that wide distribution is necessary, and a certain amount of judicious advertising. We must look on the fruit industry of Western New York as a whole and realize that we will stand or fall with the industry and not as individuals. If we raise the reputation of New York fruit through standardization so people are anxious to buy it, every individual grower in Western New York benefits.

Mr. Davis declared that the fruit growers of Western New York had been forced into cooperative marketing by the growers of the Northwest. "We found we were literally crowded out of the market. Sometimes we could not get as much for a barrel of apples as they could for a box. We could see that this was because of the poor reputation New York apples had on the market. Retailers would not buy them if they could get the standardized product from the Western States. We realized that something had to be done, and we entered into the cooperative movement."

Five Year Contract Necessary

"I think the biggest mistake we have made," continued Mr. Davis, "is that we started on a one-year contract rather than a five-year contract. There are many sound reasons for the longer term contract. In the first place, it takes a local association five years to get efficiently set up and its methods of business in order. Then there is the matter of price. Price depends on distribution, standardization, and advertising; you cannot do much on any of these in one year. Finally, a one-year contract does not contribute to a healthy relation between a local packing house and the central; the management of the central has to spend too much time and labor holding the locals in line—this costs money and detracts from efficient management of the central.

"Make it so that no one can turn aside within five years, and then no one will want to."

3,553 Cars Handled

Manager N. R. Peet reported that 3,386 cars of fruit were shipped by the association, besides 167 cars of cider apples on which the central made no handling charges, a total of 3,553 cars sold by the farmers' own organization. Mr. Peet said that the quality of this fruit was fully up to the average of Western New York when delivered to the packing houses, and when graded and packed under Cataract brand it set a new standard of quality for New York fruit.

In all, ten counties in which the association operates, he said, there are spraying services conducted by the farm bureaus. Last year only five counties offered this spray service to members. This improvement in production methods Mr. Peet credited largely to the report of the organization's production methods, which showed greatly increased returns on properly sprayed fruit.

Many Varieties a Handicap

Discussing some of the problems connected with the management of the organization, Mr. Peet pointed out that the condition of the fruit itself from the time of delivery at the packing house to point of destination was one of the chief handling costs. He deplored the necessity of handling too many varieties and expressed the opinion that same varieties should be grouped in pools.

"Few of the members," said Mr. Peet, "have any conception of the immense amount of detail connected with accounting for the various pools and disbursing the receipts. Accounting problems, however, are pretty well solved. Next year, if the recommendation of the finance committee is carried out, a payment of substantial size will be made December 1, and subsequent payments made as pools on the different fruits close.

"Experience has shown," Mr. Peet said, "that a saving of about 15 per cent is possible through the purchase of large quantities of supplies such as barrels and packing materials—for cash." He predicted more activity along this line. Referring to the discouragement of some of the growers because certain fruits or varieties had netted them very little, Mr. Peet pointed out that such experiences were inevitable, and that the only way to judge the success of the association was over a long period. "The greatest success will be possible only when growers have learned to think and act collectively."

Sales Approach Two Million

The report of the treasurer, which was made in considerable detail and thoroughly explained by the association's auditor, gave the gross sales as $1,803,564. Deductions for storage, brokerage, freight, insurance, government inspection, operating and sale expenses, amounted to $555,133. The central association made a deduction of 10 per cent for operating expenses; this sum included $81,955 brokerage fees paid to the Federated Fruit and Vegetable Growers, Inc., which acted as sales agent for the growers' organization.

New Directors Elected

M. C. Burritt of Hilton, representing the Parma Association of Monroe County, and W. J. Hall of Lockport, secretary-treasurer of the Lockport, Niagara County, branch, were elected to the board of directors for three-year terms. They take the place of the retiring president, H. W. Davis of Alton, and treasurer, I. L. Vosler of Lyndonville. William Carr of the Albion Association, Orleans County, was elected for one year to fill the unexpired term of J. A. McCollum of Newfane, who had resigned.

HOLSTEINS AVERAGE $617 AT NATIONAL SALE

One hundred and fifteen head of Holstein cattle averaged $617 at the Fourth National Cooperative Sale held at Cleveland, Ohio, on June 7 and 8, in connection with the 38th annual convention of the Holstein-Friesian Association of America. The average of the national sale held at Kansas City, a year ago, was $470. The total for all animals sold in this year's event was $71,005.

A five-months-old bull calf consigned by Berylwood Stock Farm of Hueneme, Calif., sold for $3,100 to L. L. Allis of Rummerfeld, P[illegible].

A cow consigned by Daisy Hill Farms of Chagrin Falls, Ohio, brought $1,650. Abner S. Deysher of Reading, Pa., was the purchaser.

E. M. Clark, Secretary of the Ohio Holstein-Friesian Breeders' Association, was manager of the sale.

LONG NEWS IN SHORT PARAGRAPHS

Already thousands of farm folks are making plans to attend the World's Dairy Congress and National Dairy Show in Syracuse, October 5-10. W. E. Skinner, manager of the National Dairy Show, has opened offices in Syracuse, and has brought 20 or more assistants from Chicago to help him get ready for the great event.

* * *

"The Labor Movement and the Farmer," by Hayes Robbins, published by Harcourt, Brace & Co., of New York City, gives a very clear analysis and history of the labor union movement, and shows the relation between the labor movement and agriculture. The book is good because it gives in a readable manner a clear, unprejudiced view of the development of organized labor and endeavors to bring to the farmer a better understanding of the aims of organized labor, and to labor a better knowledge of the farmer and his problems.

* * *

A representative of the League of Nations has stated that the League will do everything in its power to interest other countries in the World's Dairy Congress.

* * *

Tent caterpillars, especially in some sections, are a dangerous menace to fruit trees and other vegetables this year. They seem to be particularly bad in Westchester County, New York.

* * *

The globules of fat in five quarts of milk would, if placed end to end, encircle the earth, according to the computations based on facts found by a student in the Dairy Industry Department at Cornell. There are 2,890,020,000 fat globules in one quart of average milk. The average diameter of a fat globule is about .003 of a millimeter. Fat globules produced in twenty-four hours by one good cow would, if placed end to end, make an invisible thread more than ten times around the earth. More and more science is opening up to us great unknown realms invisible to the human eye.

* * *

The government reports that the principal grain crops of the country will be smaller this year than last, with the exception of oats and barley. The reduction in wheat is estimated to be about five or six per cent smaller than last year. Smaller crops of apples and peaches than last year are indicated, although they will be larger than the average crops of the five years 1917 to 1921, inclusive.

* * *

The Springfield National Farm Loan Bank has the honor of making the first loan under the new Intermediate Credits Law. The loan was made to the Farmers' Fund, Inc., of Rochester, and was for $50,000. The money will be supplied to farmers at 6 per cent interest.

* * *

The State of Wisconsin has issued a general order penalizing cheese factories and creameries which issue false financial statements to farmers.

* * *

Continued large importations of butter from foreign countries has caused a weak butter market in New York. Most of the foreign butter comes from Denmark and Argentine; it is also imported from New Zealand, Ireland and Holland.

* * *

More than five million persons recently heard one radio address. This was the largest audience ever addressed in the world's history. It was made possible by the connection of several of the big broadcasting stations. More people heard this talk than inhabited the whole of America in early colonial days.

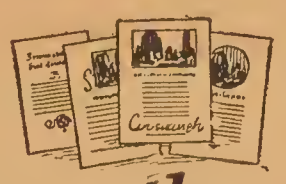
* * *

The New England Milk Producers' Association, with headquarters at Boston, reports that there has been an unexpected increase in milk production. The statment says: "Milk is coming in a flood, a deluge. Not since we have had any records has so much come in as will come in in June. This will materially affect the price, as a much larger proportion of the milk will have to be sold in Class 2, which brings a lower price."

* * *

Hog values on the Chicago market touched $6.75 on June 1. This was the lowest price since January, 1912.

I like the new management, and especially the articles by the new contributor, Jared Van Wagenen. His best work reminds me of the late Joseph E. Wing, and that is high praise, and I wish you would tell him I said so.—W. E. Bowman, Snow Hill, Md.



Give a thought to Advertising

THE other day we read an exceedingly interesting article entitled, "The Humble Beginnings of Our Great Advertisers." It told the interesting story of how some of the concerns who are now well known advertisers started their first advertising campaign.

The most interesting fact to us was the small advertising appropriations of these concerns. Here is a partial list:

Huppmobile Motor Company
$100.65

L. E. Waterman Company
$62.50

Wm. Wrigley Company
$32.00

Borden's Company
$513.75

The list is a long one, but we cannot reproduce it here. It is interesting to note how small an appropriation these concerns started with and they are today among the greatest advertisers in their field. There certainly is no question about their belief in advertising, as the Postum Cereal Company would say, "There's a Reason."

* * *

Too many consider advertising as an expense, and how often I hear it said, "Charge it to advertising." Ask any of these concerns, and they will tell you advertising is an investment and the best investment they ever made.

* * *

To be sure, not all advertising is successful. But the big, outstanding fact is that we can think of no well-known product that is sold to the public which is not advertised. Some products are so poor they cannot stand advertising, in fact, the best recognition of a product's value is the length of time it has stood advertising.

* * *

How about your own advertising? Have you anything to sell or wish to buy? If so, try our classified or live stock columns. We reach over 120,000 farmers in New York, Pennsylvania and New Jersey, and it doesn't require a big appropriation to advertise. We will be glad if you write us regarding this.

Advertising Manager

Jersey Wars on Gypsy Moth

Potato Growers Hold Tour—Pennsylvania News

FIGHTING gypsy moth infestation in the Watchung Mountain section of New Jersey is presenting the New Jersey State Department of Agriculture, cooperating with Federal entomologists, with one of the most difficult problems ever faced in an insect campaign in the State. In addition to eleven State-owned sprayers, the Federal Bureau of Entomology has loaned thirteen high pressure sprayers for use in the more heavily wooded areas. Long reels of hose will be used as extra equipment to enable the moth fighters to penetrate the wooded areas where the pest is congregated.

When the scouting work on the gypsy moth was completed on June 1, reports showed only a total of 1,140 egg masses in the entire State, as compared with over 3,000,000 reported in 1920, which indicates the effective work of the State authorities since the gypsy moth first appeared in New Jersey three years ago. Creosoting of the egg masses has killed the eggs.

The infestation is confined mainly to parts of Somerset and Middlesex Counties. Infestations previously reported in the northern part of the State and along the coast have been exterminated. A parasite which destroys the gypsy moth has been reared artificially and introduced in the moth section of New Jersey with the hope of reaching such other pests as have not been touched by creosoting and lead arsenate.

POTATO MEN HOLD ANNUAL TOUR

The Garden State Potato Association was scheduled to hold its annual inspection tour on June 18 and 19, cooperating with the New Jersey State Potato Association and the County Boards of Agriculture of Monmouth, Mercer and Middlesex Counties. The tour was to start at Freehold, N. J., the first day being spent in the inspection of variety tests in the heart of the big Monmouth County potato belt. The second day the tour was to continue in the adjacent counties of Middlesex and Mercer, where variety and potato machinery demonstrations were scheduled. The New Jersey Potato Association offered medals for champion horseshoe pitchers in a "barnyard golf" contest held at Hightstown, in conjunction with the tour.

* * *

The desirability of seed potato stock from various seed producing sections of the country is being tested by the New Jersey State Experiment Station in a 36-plot test near Elmer, N. J. Freedom from disease and relative producing qualities of the seed from various sources is sought. On June 25, potato growers from the central and southwestern sections of the State will inspect the plots and adjacent potato fields. The experiment is similar to many smaller tests being conducted this year in various parts of the State to test the relative value of seed stock from northern States as compared with that produced on New Jersey farms.

* * *

Reports received very generally from various parts of New Jersey, indicate that the germinating power of seed corn this year is above the average, since last fall was especially favorable for the proper drying of the seed saved for this year's planting. Considerable root rot in corn was reported last year and badly discolored or shredded butts or otherwise discolored ears were thrown out. County Agents were urging farmers to plant only such ears as were heavy and with smooth and "horny" grains.

CENTRAL NEW JERSEY DAIRY NOTES

According to the Mercer Office of Farm Demonstration, interest is keen this season in that county in good Holstein cows. Several new breeders and several of the farmers already established in the business are making further purchases of well-bred animals to use as foundation stock or for the general improvement of their herds. The recent sale of the Gloucester, Cumberland and Salem County Holstein Association distributed good animals to a number of breeders in New Jersey.

The second annual picnic of the New Jersey Guernsey Breeders' Association at Princeton, N. J. in early June, brought out a large attendance of dairymen and prominent speakers of other States as well as New Jersey. A judging contest for calf club members was held in conjunction with the regular program.—W. H. B.

PENNSYLVANIA FARMERS OPPOSE LIMIT TO BRIDGE CAPACITY

Nearly 300 farmers from the grain producing counties of Pennsylvania attended a recent legislative hearing at Harrisburg to oppose passage of a proposed measure which would limit bridges to a capacity of 15,000 pounds. Threshing outfits which travel the grain producing counties of the State weigh up to almost double the proposed limit. It was brought out at the hearing by Secretary J. A. Rose of the State Threshermen's Association, that the measure advocated would necessitate the loss of three-fourths of these machines, the total value of which is placed at $12,000,000. Grain farmers maintained that smaller machines would increase the cost of threshing and lengthen the season.

Interest is wide-spread over a bill recently signed by Governor Pinchot of Pennsylvania, which increases to 75 per cent the amount of State aid to rural schools to be paid to districts having $50,000 or less valuation per teacher. It also gives a 60 per cent increase in such districts having $50,000 to $100,000 valuation per teacher and 50 per cent to those districts having $100,000 to $150,000 valuation. Many of the farm organizations of the State have effectively backed measures which will bring further support to rural schools.

AMONG KEYSTONE BREEDERS

During the last month several well-attended livestock sales have been held within the State. Among these was the consignment sale of shorthorn cattle, under the auspices of the Southwest Pennsylvania Shorthorn Association at Washington, Pa. Most of the animals were sold to farmers and breeders of the locality and prices were not up to mark, 28 animals bringing an average of only $96 apiece. The best Shorthorn sold for $245. Another sale was that of the National Guernsey Association held at Devon, Pa., where 90 animals brought $105,000, or an average of $1,282 each.

Pennsylvania was well represented at the eighth annual convention of the Holstein-Friesian Association of America held in Cleveland, Ohio, on June 6. Following delegates from the State were present: W. A. Woods of Carlisle; James M. Paxton of Houston; John A. Bell, Jr., of Pittsburgh; Frank A. Keen of Westchester; Dr. L. M. Thompson of Montrose; John H. Shirk of Lancaster; O. A. Shirey of Williamsport; W. Hugh Jones of South Montrose and H. E. Robertson of York.

FIELD DAYS AT THE COLLEGE

A large turnout of farmers attended the field day exercises at the Pennsylvania State College of Agriculture on June 13 and 14, at which time the new beef cattle barn at the college was officially opened. This splendid building is up-to-date in every respect and adjoins the new dairy barn erected at the college several seasons ago. State Secretary of Agriculture, F. P. Willits, was scheduled to speak at the official opening. The full instruction and experimental facilities at the college were open during the field days for visitors. The need for further support of the agricultural work at the college was brought to the attention of visitors, augmenting the campaign which a State Committee representing allied agricultural interests started for legislative help over a year ago.

Killed 200 Rats New, Easy Way

Dog, Ferret and Traps Failed. Amazing Virus Killed Them All. Not a Poison.

"I was over-run with rats," writes H. O. Stenfert of Redford, Mich. "Seemed to be several hundred of them. Dog, Ferret and Traps failed. Tried Imperial Virus and was rid of them all in a short time. Have found rat skeletons, large and small, all over the farm."

Rats, Mice, Gophers, in fact all Rodents greedily eat Imperial Virus on bait. Sets up burning fever. Pests die outside, hunting for water. Harmless to humans, poultry, pets, stock, etc. Endorsed by Farm Bureau Experts and large, nationally known institutions everywhere. Economical to use. Large size trial bottle of this true virus for 50c or

You Can Get Yours Free

SEND NO MONEY. Write today to Imperial Laboratories, Dept. 1006, Kansas City, Mo., and they will mail you two regular $1.00 bottles of Imperial Virus (double strength). Pay postman only $1.00 and a few cents postage when package containing regular $2.00 quantity arrives. Use one yourself and sell the other to a neighbor, thus getting yours free. Readers risk no money, as Imperial Laboratories are fully responsible and will refund the cost on request any time within 30 days.

PAINT $1.25 PER Gallon

ORDER DIRECT FROM FACTORY

We will send you as many gallons as you want of good quality red or brown

BARN PAINT

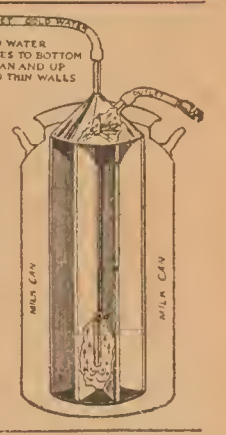
upon receipt of remittance. We are paint specialists and can supply you with paint for any purpose. Tell us your wants and let us quote you low prices. We can save you money by shipping direct from our factory. Satisfaction Guaranteed. On orders for thirty gallons or over we will prepay the freight within a radius of three hundred miles.

AMALGAMATED PAINT CO.
Factory: 374 WAYNE ST., JERSEY CITY, N. J.

ANDERSON MILK COOLER

Model B, $6 Postpaid

—PATENT APPLIED FOR—



Place into can of milk 1600 square inches of circulating water through and around milk—Takes up space equal to 2 qts. milk in the can—One piece—Efficient and easily cleaned. Manufactured by

Anderson Milker Co., Randolph, N.Y.

When writing to advertisers please mention American Agriculturist.

THIS IS *YOUR* MARKET PLACE

Classified Advertising Rates

ADVERTISEMENTS are inserted in this department at the rate of 5 cents a word. The minimum charge per insertion is $1 per week.

Count as one word eaeh initial, abbreviation and whole number, including name and address. Thus: "J. B. Jones, 44 E. Main St., Mount Morris, N. Y." eounts as eleven words.

Place your wants by following the style of the advertisements on this page.

Our Advertisements Guaranteed

THE American Agriculturist aceepts only advertising which it believes to be thoroughly honest.

We positively guarantee to our readers fair and honest treatment in dealing with our advertisers.

We guarantee to refund the price of goods purchased by our subscribers from any advertiser who fails to make good when the article purchased is found not to be as advertised.

To benefit by this guarantee subscribers must say: "I saw your ad in the American Agriculturist" when ordering from our advertisers.

The More You Tell, The Quicker You Sell

EVERY week the Ameriean Agriculturist reaches over 120,000 farmers In New York, New Jersey, Pennsylvania and adjaeent States. Advertising orders must reach our office at 461 Fourth Avenue, New York City not later than the seeond Monday previous to date of issue. Cancellation orders must reach us on the same schedule. Because of the low rate to subscribers and their friends, cash or money order must accompany your order.

ALL GOOD THINGS COME TO HIM WHO WAITS—BUT THE CHAP WHO DOESN'T ADVERTISE WAITS LONGEST

EGGS AND POULTRY

SO MANY ELEMENTS enter into the shipping of day-old chieks and eggs by our advertisers, and the hateling of same by our subscribers that the publishers of this paper cannot guarantee the safe arrival of day-old chicks, or that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibllity must end with that.

CHICKS—Whlte Wyandottes; S. C. White Leghorns. Pure-bred stock. 100% delivery guaranteed. Can make immediate shipment on Leghorns. Wyandottes $13. Leghorns $10 per hundred. ULSH POULTRY FARM, Port Trevorton, Pa.

500 LEGHORN CHICKS, July 10th, from vigorous, production bred stock, 250-egg strain, large fowls, 95 per cent ehalk-white eggs. Qulek growing hustlers. Lay at 4½ months. E. COYLE, Branchport, N. Y.

WHITE PLYMOUTH ROCK eggs for hatching, $1.25 per 15; $3.50 per 50; $6 per hundred, postpald; White Pekin Duck Eggs, $1.50 per 11, postpaid. JOS. G. KENNEL, Atglen, Pa.

BARRON WHITE LEGHORNS, 303-egg strain. Chicks, $9.50 per 100. Immediate delivery. Pullets, hens. Not a hatchery. MAPLE ACRES FARM, Tiffin, O.

PULLETS 8 TO 12 WEEKS — Hens, Leghorns, Rocks, Reds, Anconas, Minorcas, farm-raised. FRANK'S POULTRY FARM, Box A, Tiffin, Ohio.

400 WHITE LEGHORN YEARLINGS and 2-year old hens, $1.50 each. None better. CLARE GREGORY, Mt. Vision, N. Y.

REAL ESTATE

WANTED—Farm of 200 to 500 acres in the hills of New York State. Sulted to sheep ralsing. Must be at altitude of at least 2,500 feet and within 150 miles of New York City. Prefer property contalning lake and stream for trout breeding. Send full details, photographs to C. F. CAHILL, Room 1012, 33 West 42d Street, New York City.

SPLENDID VIRGINIA PLANTATION—Near Richmond; 1,600 acres, on State highway, half mile to county seat; 500 acres eultivated, 800 aeres timber, Colonial brick residenee, large barns, tenant houses, teams, machlnery, growing erops; $22 acre. LAFAYETTE MANN, 123 N. 8th Street, Richmond, Va.

FOR SALE—Dairy farm of 99½ acres, ten-room house, barn 30x80, outbuildings, full line of implements, 12 eows, 3 horses, 5 head young stock, all crops in the ground. JOSEPH OTFINOWSKI, Route 3, Marathon, N. Y.

185-ACRE FARM—Ten minutes from town on State road, good for forty head of cattle, $6,000 Federal Loan paid for three years; price $8,000. Buildings alone worth $12,000. BOX 129, Marathon, N. Y.

FARMS FOR SALE — 160 and 177 acres, good buildings, land and nelghbors, on Improved road. $8,000. Equipped if wanted. CLARE GREGORY, Mt. Vision, N. Y.

DOGS AND PET STOCK

FARM DOG—English Shepherds; pups and drivers. Natural instinct to handle cattle. Credit given if requested. Nine litters ready now. W. W. NORTON, Ogdensburg, N. Y.

FLEMISH GIANT RABBITS—The big kind, young and mature stock, fully pedigreed and healthy. Write wants. T. A. WILSON. Marion, N. Y.

AGENTS WANTED

AGENTS WANTED—Agents make a dollar an hour. Sell Mendets, a patent patch for instant mending leaks in all utensils. Sample package free. COLLETTE MFG. CO. Dept. 210, Amsterdam, N. Y.

SEEDS AND NURSERY STOCKS

MILLIONS OF CELERY AND CABBAGE Plants, $2.50 per 1,000. Over 5,000 at $2 per 1,000. Special prices on large orders. Early Snow-ball Cauliflower plants, $3.50 per 1,000 straight. WELLS M. DODDS, North Rose, N. Y.

CABBAGE, CELERY — Ready for field, $1.25 per 1,000; beet, onion, lettuce, strong plants, $1 per 1,000; tomato, all kinds, $2 per 1,000; cauliflower, peppers, egg plants, $3 per 1,000. Send for llst. J. C. SCHMIDT, Bristol, Pa.

FOR SALE—Early Copenhagen market and Danish cabbage plants from treated seed; $2 per 1,000. C. J. STAFFORD, Route 3, Tel., Cortland, N. Y.

MILLIONS of Cabbage and Tomato Plants; all leading varieties; 1,000—$2; 500—$1.25. Postpaid. J. H. SCOTT, Franklin, Va.

CATTLE

REGISTERED AYRSHIRES—We have priced for immediate sale, our entire herd of pure-bred Ayrshires, consisting of our fine herd sire, Cacapon Prince No. 28423, and fifteen choice eows and heifers. We have never had a reactor. ARDEN HILL FARMS, Alfred Station, Allegany Co., N. Y.

FOR SALE — Two Holstein Friesian bull calves, calved Mareh 5th and 10th, 1923; 25% King Korndyke Sadie Vale, also Sir Vreeman Hengerveld, Aaggie Cornucopia Johanna Lad, Jr. and Aaggie Pontiac Korndyke with Duchess Ormsby. F. D. CURTIS, Amsterdam, N. Y.

ORCHARD GROVE MILKING SHORTHORNS. Two young heifer calves, attractive prices. Dams, 12 and 16 years old, our best produeers. Sire, Baron Clay. L. R. HOTCHKISS, West Springfield, Erie Co., Pa.

CHOICE MAY ROSE Guernseys for sale. Males and females, all ages, accredited herd. Will sell reasonable for quiek sale. JOHN K. CORBETT, Laneaster, Pa.

FOR SALE — Milking Shorthorn Heifers (yearlings and calves), at farmers' priees. Herd Federal tested. ERNEST, COTTRELL, Hoosick Falls, N. Y.

4 YOUNG REGISTERED AYRSHIRE COWS —Large big bags, niee teats, one to two years old, to freshen soon; $700. CLARE GREGORY, Mt. Vision, N. Y.

SWINE

REGISTERED DUROC WEANED PIGS—$10, either sex, including papers, crating, delivering. Quick-growing husky rascals. CHAS. MEARSON, Weedsport, N. Y.

PIGS! PIGS! PIGS! — The best registered Chester White, 8 weeks old. Satisfaetion guaranteed. $10 each prepaid. CLARENCE BEY, Clarington, Ohio.

FOR SALE—Large English Berkshire boar pigs, two months old; price $7 each. Papers for registration furnished. KRANTZ & SONS. Dover, Ohio.

FOR SALE—Registered Chester White swine. Write your wants. J. A. BOAK & SONS, R. D. 4, New Castle, Pa.

HELP WANTED

WANTED AT ONCE—Men (single, or married men with small families) to work in modern cow barn. Wages $60 to $70 per month and board. Good chance for advancement. Large herd of registered Holsteins. WINTERTHUR FARMS, Winterthur, Delaware.

WANTED — Single man to work on dairy farm through July and August: $60 per month and board. Milking machine used. Give good references. HARRY E. O'CONNOR, Pleasant View Farm, New Kingston, Delaware Co., N. Y.

ALL men, women, boys, girls, 17 to 60, willing to accept Government positions, $117-$190, traveling or stationary, write MR. OZMENT, 258 St. Louis, Mo., immediately.

TURKEYS

TURKEY EGGS—mammoth bronze, bourbon red, Narragansett, white holland. 15 reasons why we have the greatest bargain for you. Write WALTER BROS., Powhatan Point, Ohio.

MISCELLANEOUS

BUILD your own phonographs. We can supply you with motors, tone arms, and all accessories at wholesale prieos. Write for catalog AX. PLEASING SOUND PHONOGRAPH COMPANY, 204 East 113th Street, New York, N. Y.

LATEST STYLE SANITARY MILK TICKETS save money and time. Free delivery. Send for samples. TRAVERS BROTHERS, Dept. A, Gardner, Mass.

EXTENSION LADDERS, 23c ft.; three-leg fruit ladders, 30e ft. Freight paid. A. L. FERRIS, Interlaken, N. Y.

FOXES WANTED — Young or old ones. ROSS BROWN, McFall, Ala.

Why Not Go Camping With the Car?

(*Continued from page* 521)

water boiled in five minutes. The price is about $9.

Cooking equipment, like everything else, must be kept simple. A tin eup, plate, knife, fork and spoon for each person together with two or three dishes to cook the food in over the fire or on the stove, all of which will pack and nest together, is all that the average person will need. Outfits may be purehased whieh contain everything needed for cooking in a single case. One such outfit for two people contains one 7-pint eooking pot, one 10-pint eooking pot, one 4-pint coffee pot, one frying pan, two plates, two dessert spoons, two eups, two soup bowls, two knives, two forks and two teaspoons.

Other tools that will be neeessary for any camper, in addition to the regular repair and adjustment implements for the car, are some kind of a eamp axe, a shovel and a hunting knife. The ear will have its own lights, but an adjustable spotlight will also be found satisfaetory and a good lantern will also come handy.

Other Conveniences

There are a lot of other convenienees that may be added, one of whieh is a refrigerator basket, but we would advise against taking on too much equipment at first until one learns by experienee just what is needed to get the most fun. One of the best parts of the trips are the pleasant memories recalled by photographs, so "Kodak as you go."

Speaking of a complete camp outfit, Mr. Long says: "An auto camper who has been at the eamping game for the past ten years, who has kept at week-end camping right along and who has crossed the continent a couple of times, camping along the route, has out of his long experience reaehed this as his standard outfit. He takes an "Auto Bed" with a 7 x 7′ tent; a six-pound cotton pad or mattress for the bed; a two-burner gasoline eamp stove; one heavy double blanket; one wool-filled quilt; a blanket roll; two eight-quart milk cans for water; and a refrigerator basket. The whole affair packs into very small space."

A party of four Ohians from Cleveland took a twelve-hundred-mile motor camping trip through their own and one or two adjaeent States, at a cost of about one dollar a day eaeh. The outfit which they used, which made them very eomfortable, was as follows:

Keep Baggage Down

"Personal baggage was kept down to the lowest possible amount. Two double suit cases rode on the baggage carrier, and two large duffle bags were plaeed in front of the suit eases. They also carried a tool outfit, including a spade, hatchet, piek-ax, and a eoil of strong rope; also the usual repair kit for car and tires. The outfit just described weighed two hundred and fifty pounds. This list was found to meet every requirement and was easily paeked in the ear.

"In addition to the artieles already named the following items were also carried: one canvas tent 8¾ feet square, one A tent 8 by 10 feet, four folding stools and cots, blankets, ponchos and pneumatic pillows, two waterproof duffle bags, canvas water bottle, folding water bucket and basin, two hatehets and clothes line, aluminum cooking set, alcohol stove and fuel, two vaeuum bottles and a refrigerator basket, two electrie flashlights, camera and tripod, fishing taekle, canned provisions, coffee, sugar, ete., tarpaulins and assorted straps."

Campers should always plan to take plenty of warm clothing, including wool under-elothing.

When it comes to buying eamp equipment, there are the large mail-order houses, which earry quite a large variety, the merits of which can be studied from the catalogs in nearly every farm home. There are several large eamp equipment manufaeturers that make everything the camper needs and there are also army stores in most eities where most of the material can be found at reasonable priees.

All that we ean hope to do in an article of this kind is to give you a suggestion. If you are really interested, we would suggest that you get Mr. Long's book for more details, or talk with some experienced eamper in your own neighborhood. If we have sueeeeded in ereating interest in a few more farm families in this splendid way of getting some mueh needed rest and reereation, then this artiele has been worth while.

A Plea For Better Understanding

(*Continued from page* 518)

and that all his ealling needs is a large dose of business methods. I want to tell you that the farmer is the uneonseious heir to a great heritage of skill and practieal knowledge, and that he already conduets his business so effieiently that anyone else who tries it is pretty sure to arrive at bankruptcy unless he has outside resourees.

Sometimes these self-appointed efficiency experts are pleased to compare the per acre yields of American and European or Asiatic farms, and thereby eause the American farmer to appear in a most discouraging light. As a matter of fact, if judged by the food units produeed per man (not by bushels per acre), the American farmer is the best and most efficient farmer in all the world.

Relatively, we are declining in numbers. There are six and one-half million heads of farm families in the United States. There are almost a quarter of a million farmers in New York State. Yet, in this State only one man out of ten lives direetly from the soil. We are surely dependent upon you, but you cannot live without us. Let us be friends and neighbors and eomrades.

I am told that the membership of the Chamber of Commerce of Rochester ineludes some 600 farmers who live on the fat farms which lie around that beautiful city. This is beeause a far-seeing Seeretary has eome to realize that Rochester is a widespread eommunity and not a walled town, and that it ineludes many business men whose plant is under the open sky and not beneath a roof or within briek walls.

I wish very earnestly that I had time and wisdom so that I might plead in worthy fashion for a better and eloser sympathy and appreciation and understanding between the folk of the eity and the folk of the farm.

MEETINGS OF NEW YORK GRANGE OFFICIALS

The eonferenee of Masters and Lecturers of New York State Granges have been seheduled for the month of June as follows:

June 25—at Syraeuse, in the Court House, (County Court, Part II, 3rd Floor), for the Counties of Cayuga and Onondaga.

June 26—at Pulaski, in the Grange Hall, for Oswego County.

June 27—at Watertown, in the Grange Hall, for Jefferson County.

June 28—at Lowville, in the Grange Hall, for Lewis County.

June 29—at Canton, in the Grange Hall, for St. Lawrenee County.

June 30—at Malone, in the Pangborn Post Rooms, for Franklin County.

. . .

The Brown Mouse—*By Herbert Quick*

"THE grammar is good this morning. You're gradually mastering the art of stating a problem in arithmetic in English—and that's improvement."

The hands of Jim Irwin's dollar watch gradually approached the position indicating nine o'clock—at which time the schoolmaster rapped on his desk and the school came to order. Then, for a while, it became like other schools. A glance over the room enabled him to enter the names of the absentees, and those tardy. There was a song by the school, the recitation in concert of *Little Brown Hands*, some general remarks and directions by the teacher, and the primary pupils came forward for their reading exercises. A few classes began poring over their text-books, but most of the pupils had their work passed out to them in the form of hectograph copies of exercises prepared in the school itself.

As the little ones finished their recitations, they passed to the dishes of wheat, and began aiding Raymond's squad in the counting and classifying of the various seeds. They counted to five, and they counted the fives. They laughed in a subdued way, and whispered constantly, but nobody seemed disturbed.

"Do they help much, Calista?" asked the teacher, as the oldest Simms girl came to his desk for more wheat.

"No, seh, not much," replied Calista, beaming, "but they don't hold us back any—and maybe they do he'p a little."

"That's good," said Jim, "and they enjoy it, don't they?"

"Oh, yes, Mr. Jim," assented Calista, "and the way Buddy is learnin' to count is fine! They-all will soon know all the addition they is, and a lot of multiplication. Angie Talcott knows the kinds of seeds better'n what I do!"

CHAPTER VIII

AND THE OLD BOTTLES

THE day passed. Four o'clock came. In order that all might reach home for supper, there was no staying, except that Newt Bronson and Raymond Simms remained to sweep and dust the schoolroom, and prepare kindling for the next morning's fire—a work they had taken upon themselves, so as to enable the teacher to put on the blackboards such outlines for the morrow's class work as might be required. Jim was writing on the board a list of words constituting a spelling exercise. They were not from the text-book, but grew naturally out of the study of the seed wheat—"cockle," "morning-glory," "convolvulus," "viable," "viability," "sprouting," "iron-weed" and the like. A tap was heard at the door, and Raymond Simms opened it.

In filed three women—and Jim Irwin knew as he looked at them that he was greeting a deputation, and felt that it meant a struggle. For they were the wives of the members of the school board. He placed for them the three available chairs, and in the absence of any for himself remained standing before them, a gaunt shabby-looking revolutionist at the bar of settled usage and fixed public opinion.

Mrs. Haakon Peterson was a tall blonde woman who, when she spoke betrayed her Scandinavian origin by the northern burr to her "r's," and a slight difficulty with her "j's," her "y's" and long "a's." Jim felt an instinctive respect for her personality. Mrs. Bronson was a good motherly woman, noted for her housekeeping, and for her church activities. She looked oftener at her son and his friend Raymond than at the schoolmaster. Mrs. Bonner was the most voluble of the three, and was the only one who shook hands with Jim; but in spite of her rather offhand manner, Jim sensed in the little, black-eyed Irishwoman the real commander of the expedition against him—for such he knew it to be.

"You may think it strange of us coming after hours," said she, "but we wanted to speak to you, teacher, without the children here."

"I wish more of the parents would call," said Jim. "At any hour of the day."

"Or night either, I dare say," suggested Mrs. Bonner. "I hear you're the scholars here at all hours, Jim."

JIM smiled his slow patient smile. "We do break the union rules, I guess, Mrs. Bonner," said he; "there seems to be more to do than we can get done during school hours."

"What right have ye," struck in Mrs. Bonner, "to be burning the district's fuel, and wearing out the school's property out of hours like that—not that it's anny of my business," she interposed, hastily, as if she had been diverted from her chosen point of attack. "I just thought of it, that's all. What we came for, Mr. Irwin, is to object to the way the teachin's being done—corn and wheat, and hogs and the like, instead of the learnin' schools was made to teach."

"Schools were made to prepare children for life, weren't they, Mrs. Bonner?"

"To be sure," went on Mrs. Bonner, "I can see an' the whole district can see that it's easier for a man that's been a farm-hand to teach farm-hand knowledge, than the learnin' schools was set up to teach; but if so be he hasn't the book education to do the right thing, we think he should get out and give a real teacher a chance."

"What am I neglecting?" asked Jim mildly.

Mrs. Bonner seemed unprepared for the question, and sat for an instant mute. Mrs. Peterson interposed her attack while Mrs. Bonner might be recovering her wind.

"We people that have had a hard time," she said in a precise way which seemed to show that she knew exactly what she wanted, "want to give our boys and girls a chance to live easier lives than we lived. We don't want our children taught about nothing but work. We want higher things."

"Mrs. Peterson," said Jim earnestly, "we must have first things first. Making a living is the first thing—and the highest."

"HAAKON and I will look after making a living for our family," said she. "We want our children to learn nice things, and go to high school, and after a while to the Juniwersity."

"And I," declared Jim, "will send out from this school, if you will let me, pupils better prepared for higher schools than have ever gone from it—because they will be trained to think in terms of action. Aren't you're children happy in school, Mrs. Peterson?"

"I don't send them to school to be happy, Yim," replied Mrs. Peterson, calling him by the name most familiarly known to all of them; "I send them to learn to be higher people than their father and mother. That's what America means!"

"They'll be higher people—higher than their parents—higher than their teacher—they'll be efficient farmers, and efficient farmers' wives. They'll be happy, because they will know how to use more brains in farming than any lawyer or doctor or merchant can possibly use in his business."

"It's a fine thing," said Mrs. Bonner, coming to the aid of her fellow soldiers, "to work hard for a lifetime, an' raise nothing but a family of farmers! A fine thing!"

"They will be farmers anyhow," cried Jim, "in spite of your efforts—ninety out of every hundred of them! And of the other ten, nine will be wage-earners in the cities, and wish to God they were back on the farm; and the hundredth one will succeed in the city. Shall we educate the ninety-and-nine to fail, that the hundredth may steal them away to make the city stronger?"

The guns of Mrs. Bonner and Mrs. Peterson were silenced for a moment, and Mrs. Bronson, after gazing about at the typewriter, the hectograph, the exhibits of weed seeds, the Babcock milk tester, and the other unscholastic equipment, pointed to the list of words, and the arithmetic problems on the board.

"Do you get them words from the speller?" she asked.

"No," said he, "we got them from a lesson on seed wheat."

"Did them examples come out of an arithmetic book?" cross-examined she.

"No," said Jim, "we used problems we made ourselves. We were figuring profits and losses on your cows, Mrs. Bronson!"

"Ezra Bronson," said Mrs. Bronson loftily, "don't need any help in telling what's a good cow. He was farming before you was born!"

"Like fun, he don't need help! He's going to dry old Cherry off and fatten her for beef; and he can make more money on the cream by beefing about three more of 'em. The Babcock test shows they're just boarding on us without paying their board!"

THE delegation of matrons ruffled like a group of startled hens at this interposition, which was Newton Bronson's effective seizing of the opportunity to issue a progress bulletin in the research work on the Bronson dairy herd.

"Newton!" said his mother, "don't interrupt me when I'm talking to the teacher!"

"Well, then," said Newton, "don't tell the teacher that pa knew which cows were good and which were poor. If anyone in this district wants to know about their cows they'll have to come to this shop. And I can tell you that it'll pay 'em to come too, if they're going to make anything selling cream. Wait until we get out our reports on the herds, ma!"

The women were rather stampeded by this onslaught of the irregular troops—especially Mrs. Bronson. She was placed in the position of a woman taking a man's wisdom from her ne'er-do-well son for the first time in her life. Like any other mother in this position, she felt a flutter of pride—but it was strongly mingled with a motherly desire to spank him. The deputation rose, with a unanimous feeling that they had been scored upon.

"Cows!" scoffed Mrs. Peterson. "If we leave you in this yob, Mr. Irwin, our children will know nothing but cows and hens and soils and grains—and where will the culture come in? How will our boys and girls appear when we get fixed so we can move to town? We won't have no culture at all, Yim!"

"Culture!" exclaimed Jim. "Why—why, after ten years of the sort of school I would give you if I were a better teacher, and could have my way, the people of the cities would be begging to have their children admitted so that they might obtain real culture—culture fitting them for life in the twentieth century—"

"Don't bother to get ready for the city children, Jim," said Mrs. Bonner sneeringly, "you won't be teaching the Woodruff school that long."

All this time, the dark-faced Cracker had been glooming from a corner, earnestly seeking to fathom the wrongness he sensed in the gathering. Now he came forward.

"I reckon I may be making a mistake to say anything," said he, "f'r we-all is strangers hyeh, an' we're pore; but I must speak out for Mr. Jim—I must! Don't turn him out, folks, f'r he's done mo' f'r us than eveh anyone done in the world!"

"What do you mean?" asked Mrs. Peterson.

"I mean," said Raymond, "that when Mr. Jim began talking school to us, we was a pore no-'count lot without any learnin', with nothin' to talk about except our wrongs, an' our enemies, and the meanness of the Iowa folks. You see we didn't understand you-all. An' now, we done got hope from this school. We're goin' to make good in the world. We're getting education. We're all learnin' to use books. My little sister will be as good as anybody, if you'll just let Mr. Jim alone in this school—as good as anyone. An' I'll he'p pap get a farm, and we'll work, and think, an' be happy!"

CHAPTER IX

JENNIE ARRANGES A CHRISTMAS PARTY

THE great party magnates who made up the tickets from governor down to the lowest county office, doubtless regarded the little political plum shaken off into the apron of Miss Jennie Woodruff of the Woodruff District, as the very smallest of all the plums on the tree; but there is something which tends to puff one up in the mere fact of having received the votes of the people for any office. Jennie was a sensible country girl. But she did feel some little sense of increased importance as she drove her father's little runabout over the smooth earth roads, in the crisp December weather.

The weather itself was stimulating, and she was making rapid progress in the management of the little car which her father had offered to lend her for use in visiting the one hundred or more rural schools soon to come under her supervision.

Mr. Haakon Peterson was phlegmatically conscious that she made rather an agreeable picture as she stopped her car alongside his top buggy to talk with him. She had bright blue eyes, fluffy brown hair, a complexion whipped pink by the breeze, and she smiled at him ingratiatingly.

"Don't you think father is lovely?" said she. "He is going to let me use the runabout when I visit the schools."

"That will be good," said Haakon. "It will save you lots of time. I hope you make the county pay for the gasoline."

"I haven't thought about that," said Jennie. "Everybody's been so nice to me—I want to give as well as receive."

"Why," said Haakon, "you will yust begin to receive when your salary begins in Yanuary."

"Oh, no!" said Jennie. "I've received much more than that now! You don't know how proud I feel. So many nice men I never knew before, and all my old friends like you working for me, just as if I amounted to something."

"And you don't know how proud I feel," said Haakon, "to have in county office a little girl I used to hold on my lap."

IN early times, when Haakon was a flat-capped immigrant boy, he had earned the initial payment on his first eighty acres of prairie land as a hired man on Colonel Woodruff's farm. Now he was a rather richer man than the colonel, and not a little proud of his ascent to affluence. He was a mild-spoken, soft-voiced Scandinavian, quite completely Americanized, and possessed of that aptitude for local politics which makes so good a citizen of the Norwegian and Swede. His influence was always worth fifty to sixty Scandinavian votes in any county election. He was a good party man and conscious of being entitled to his voice in party matters. This seemed to him an opportunity for exerting a bit of political influence.

"Yennie," said he, "this man Yim Irwin needs to be lined up."

"Lined up! What do you mean?"

"The way he is doing in the school," said Haakon, "is all wrong. If you can't line him up, he will make you trouble. We must look ahead. Everybody has friends, and Yim Irwin has his. If you have trouble with him, his friends will be against you when we

(*Continued on page* 528)

WHAT HAS HAPPENED

JIM IRWIN'S school is going strong, but the community, which elected him teacher to break a deadlock, is scandalized by his "notions." The children, however, flock to help him judge seed corn, work out problems drawn from everyday farm life and argue about different breeds of dairy cattle. Firmest among his adherents are Newton Bronson, former village problem, and Raymond Simms, the misunderstood mountain boy. Against him are pitted the school board and public opinion, while Jennie Woodruff, his old sweetheart, has gone over to the enemy since Jim showed lukewarm enthusiasm on her election as county superintendent, an office she holds because of political favor.

Putting the Sheppard-Towner Bill Into Action

State Health Department Plans—Another Embroidery Design—Better Homes on Less Money

ALTHOUGH the work of carrying out the provisions of the Sheppard-Towner Act may be slow in getting started, every farm mother should eventually benefit by it, according to Dr. Nichols of the State Department of Health. Dr. Nichols who addressed a "jubilee meeting" held recently at the Y. W. C. A. building in New York City by the United Women's Organizations which achieved the passage of the bill, said that women doctors and nurses were now being trained for this special service.

Some misunderstandings about the work to be done have arisen, and Dr. Nichols, in explaining the method to be followed, said that in no case would help be forced upon any woman who did not want it. Expert, personal service will be available to all prospective mothers who thus can safeguard their own health, as well as that of their babies. The importance of pre-natal care has been more and more realized, and the danger of loss of life to both mother and child is greatly lessened when proper care is observed during pregnancy.

Miss Lillian Wald, originator of the visiting nurse idea, who has now more than a hundred such nurses under her supervision in New York City, gave some interesting figures showing the immediate decrease in maternal and infant deaths when pre-natal nursing care is given. Miss Wald spoke of the fact that during the epidemic of influenza which proved particularly dangerous to pregnant women, there was not a single death from that cause in a group of five thousand persons under systematic nursing care. The death rate of babies under a year old in the crowded city districts which these nurses serve is now exactly one-half that of the rest of the city, and is far lower than the rate in the country.

Sixty Miles to a Doctor

"Not every one knows the origin of the Sheppard-Towner bill, which some time ago passed the Federal Government, providing funds for States which appropriated an equal amount," said Miss Wald. "Although the subject of better care for mothers in isolated districts had been much discussed, I think that it was first crystallized when I received a letter from a western woman, a real pioneer of fine old stock, who was expecting her first baby and who wrote to me in New York, for advice. The nearest help of any sort was 60 miles away and a good doctor was even further. A woman physician I knew was planning for her vacation and thought Wyoming as good a place to spend it as any other. So she went clear out there to bring that baby into the world. Her report of the conditions under which these splendid western women were bringing up their families stirred us all up to action."

New York State, though not so sparsely settled as portions of the West, is lamentably short of both doctors and nurses, according to Mrs. F. H. Vanderlip and Mrs. Mitchell, officers of the League of Women Voters, who worked valiantly for the bill. In making a State health survey in the interests of the bill, League members found that farm women constantly spoke of their need for pre-natal care.

A Fair Chance for Mothers and Babies

"Every so often, when we were asking for signatures to our list of those in favor of the bill, some one would say 'Do you want Aunt Ella to sign? She's been bedridden since her baby was born.'" said Mrs. Mitchell. "We would answer that indeed, we did want Aunt Ella's signature. We wished that we could have indicated in some special way the names of the many women who suffered permanent ill health or whose children died or were not strong because the mother did not have a fair chance. It does not force a woman to have pre-natal care, but the woman who wants to bear her child under healthy, normal conditions, may have it for the asking."

Difficulty in obtaining skilled doctors and nurses was reported by Dr. Nichols as the main reason for the slow progress of the State Department in getting the work under way. He said that the demonstrations given by a visiting nurse far outweigh printed instructions, and that such nurses had to be trained for their special sort of work. He reported that local doctors were eager to have the benefit of advice from and conference with specialists, and said that the department welcomed calls for cooperation and would answer them as quickly and as liberally as possible. The Federal fund is entirely in the hands of the State Department to administer.

WHEN DREAMS COME TRUE

Before I was married, I had planned on all new furniture for our home, but family finances altered the case. Husband's mother gave us part of our furniture and my grandmother contributed the rest. But since I've renovated everything in the house, I don't feel a bit ashamed now when my old school friends drop in to call.

When we first moved into our little home, the floors and the wood-work in each of the four rooms were painted a sickly yellow and the wall papers were of so many colored hues that they fairly shouted at you.

When we decided to renovate, I began with the kitchen. It is 9 x 12, and had only one outside door, facing the south, and one small window facing the west.

Windows Improve the Kitchen

I placed two medium sized windows on each side of the door on the south, and substituted two larger ones for the small west one. Husband balked at the idea of an all-white kitchen, but he gave in at last. The wood-work, shelves, table and cupboards are all enamelled in white. The walls are covered with a blue and white checked oilcloth paper that is easily kept clean.

I had an old linoleum rug that had once been blue and white and was still in fairly good condition. I gave it two coats of delft blue paint and had a nice looking rug.

All my life, I planned on a sink and hot and cold water in the kitchen. So I finally came to the conclusion that I'd dig down into the bank account and have my ideal kitchen. So we purchased a pneumatic hand power pump and had it placed in the smokehouse. It pumps all the water right into the house from the well and only cost us $52.75.

The hot water boiler, that is heated by the kitchen range, cost $24.75. The wash bowl and sink for the kitchen were all white enamel, and the sink has double drain boards.

The sink cost $40.95 with all fittings and the wash bowl, $12.45. Husband did all the carpenter and plumbing work himself, thereby saving 80 cents on the hour.

Paint Goes a Long Way

The living-dining room was painted all in white too, and I put a blue and white rag rug down on the floor. The walls were papered with a pretty subdued design in grey.

The table and chairs were all white (the table was a small kitchen table), and were stenciled with tiny borders of blue thistle and pink rose design. For the windows I used pretty cretonne.

The smaller of the two bedrooms is just large enough to hold a bed, dresser and a chair. The wood-work here was all in white, and the curtains were made of grey and pink cretonne. A small chiffonier, a four poster bed and a small rocker were finished in silver grey. I placed a small mirror over the chiffonier and a grey and pink cretonne cushion in the rocker. The wall paper was grey.

My own room was all blue, the furniture being painted a soft shade of blue. It was stenciled with a tiny pink rose design. A blue and pink rag rug is on the floor.

The walls were papered with a quiet paper. Where dresser and table scarfs, were necessary, I made them out of the cretonne.

The entire cost of our renovation was $175. The hot and cold water supply outfit alone cost $140.—A FARMER'S WIFE.

FOR NEXT WINTER'S MENUS

Now is the time to begin the planning of the vegetable course for next winter's meals. Why? Because now is the time to plan the garden, and while planning your garden allow an extra row of peas, wax beans, beets and tomatoes (if you do not have a large tomato patch) for home canning. I prefer the first lot of peas, wax beans and beets for this, for not only are they better flavored, but the ground can then be planted in sugar corn for early fall canning. Country Gentleman and Shoe Peg are both very good varieties of sugar corn for canning; and Golden Bantam is excellent for canning on the cob.

The hardy greens are better for winter if you have a good place to keep them in, where they will not have to be disturbed to make room for something else; but it is nice to have a few jars of canned greens for emergency if it should be too stormy to get the other. And though dried lima beans are good soaked over night and boiled with a piece of meat, canned green beans are nicer.

I prefer the "Conservo Cooker" to other makes of canning apparatus, as not only—to me—is it easier and quicker, but the fruit and vegetables retain more of the natural flavors.

I now have on hand enough canned vegetables to last till the fresh vegetables come on, because my husband plants as many for canning purposes as he does for use during the season; we both gather the ones for canning and prepare them, and I do the canning. And because of our joint work we have from two, three or four vegetables on our dinner table every day throughout the year.—CATHERINE R. GROVES.

THE JARS ON YOUR SHELVES

How many cans of fruit and vegetables will the average family use? The Department of State Economics at the State College at Ithaca suggests the following quantities to last for one year: For a family of five, 80 quarts of tomatoes, 100 quarts of green vegetables, 50 quarts of starchy vegetables, 250 quarts of fruits and 40 quarts of conserves and jellies.

Because of the presence of certain necessary vitamins, tomatoes are provided in quantity, but the use of oranges at certain seasons of the year may somewhat decrease the amount of tomatoes used. The amount of vegetables stored may also affect the quantity of green vegetables in cans.

DESIGN FOR A SCARF END OR SOFA PILLOW

HERE is an embroidery design which is equally effective for a sofa pillow or table scarf. It is simple to do, requiring only three easy stitches—the outline stitch, the "lazy daisy" and the french knot. Yet the design is so arranged that by combining your colors cleverly you can get a very artistic effect.

Tan linen, worked in dark brown heavy twist silk for all but the french knots which are worked in a golden yellow, is smart. So is black satin, using dark green and golden yellow.

A transfer pattern for this design, in size 12 by 16 inches will be sent upon receipt of **12c in stamps.** Address your order to the Handicraft Department and ask for **E 12.**

The Brown Mouse

(*Continued from page* 527)

want to nominate you for a second term. If we go to convention without your home delegation it would weaken you, and if we nominate you, every piece of trouble like this cuts down your wote. You ought to line him up and have him do right."

"But he is so funny," said Jennie.

"He likes you," said Haakon. "You can line him up."

Jennie blushed.

"But if I cannot line him up?"

"I tank," said Haakon, "if you can't line him up, you will have a chance to rewoke his certificate when you take office."

So Jim Irwin was to be crushed like an insect. Jennie dimly sensed the tragedy of it, but very dimly. Mainly she thought of Mr. Peterson's suggestion as to "lining up" Jim Irwin as thoroughly sensible. She could not help feeling a little resentment at Jim for following his own fads and fancies so far. The idea that there could be anything fundamentally sane in his overturning of the old and tried school methods, under which both he and she had been educated, was absurd to Jennie. To be sure, everybody had always favored "more practical education," and Jim's farm arithmetic, farm physiology, farm reading and writing, cow-testing exercises, seed analysis, corn clubs and the tomato, poultry and pig clubs he proposed to have in operation the next summer, seemed highly practical; but to Jennie's mind, the fact that they introduced dissension in the neighborhood and promised to make her official life vexatious, seemed ample proof that Jim's work was visionary and impractical. Poor Jennie was not aware of the fact that new truth always comes bringing, not peace to mankind, but a sword.

"Father," said she that night, "let's have a little Christmas party."

"All right," said the colonel. "Whom shall we invite?"

"Don't laugh," said she. "I want to invite Jim Irwin and his mother, and nobody else."

(*Continued next week*)

"She Wrote the Pageant, You Know"

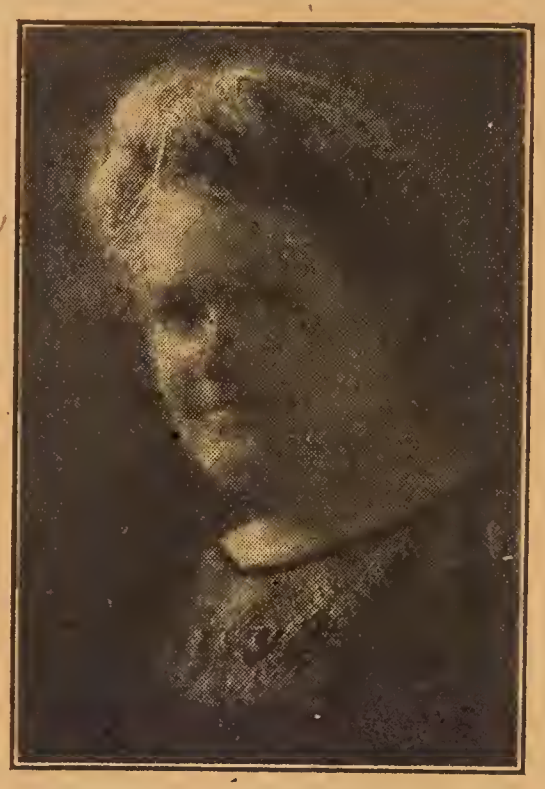
A Visit to Mrs. G. Thomas Powell—Ideas For the Home Dressmaker

By GABRIELLE ELLIOT

"MRS. POWELL of Glen Head, Long Island, who wrote the Farmers' Week Pageant, you know—"

Of course Mrs. Powell was a very popular and well-known woman in New York State farm affairs before the first performance of her work at Syracuse, but ever since then she has been known largely as "the author of the pageant" and anyone mentioning her name is sure to speak of that really noteworthy piece of writing.

The pageant, with its sound knowledge of farm life and problems and its strongly optimistic philosophy, was in itself an introduction to the woman who wrote it. But Mrs. Powell is the sort of person who is so vitally and genuinely interesting in everything and everybody else that it was perhaps just as well to have a little idea of her work before meeting her. Otherwise she might never have thought that subject important enough to get around to!



Mrs. G. Thomas Powell is a much beloved woman, not only in her own community of Glen Head, Long Island, but all through the State. She is an enthusiastic attendant upon the annual Farmers' week at Ithaca, and many who do not know her personally feel as though they did, because they have seen her and heard her speak at the conferences there

Mrs. Powell's greatest charm—and she has many—is perhaps her beaming smile. When the train pulled in to the little Glen Head station, down on Long Island, she stood smiling a welcome on the platform and when the city bound train pulled out some hours later, the last impression was of her cheerful wave and smile as she saw her guest safely on board and started to turn the little car around towards home again.

In between the welcome and the goodby came a real old-time visit, during which we rocked and gossiped in the big front room, talking about everything under the sun. According to Mrs. Powell, who is not a native-born Long Islander, Nassau county is a pretty nice place to live, and the big comfortable house, the wide fields stretching out behind it and the tang of the sea-air which drifts in no matter how far inland a Long Island farm may be, all seemed to confirm her in her belief.

"The population of the Island is constantly shifting, however," said Mrs. Powell. "Recently something very amusing happened, which certainly made us feel like the oldest inhabitants.

"At the back of the house we have a loud but useful dinner bell with which I call Mr. Powell when meal time comes around. It isn't especially handsome—at least in our eyes—but it serves its purpose.

"A little while ago, a liveried chauffeur left at my door a note from one of the big estates which now lie all about us. The letter, written on crested stationery, in a very dashing handwriting, said that the lady of the estate had admired the quaint old bell which hung behind our house and that she hoped we would not be hurt by her request that we sell it to her. Understanding how we must cherish it, she said, she would be willing to pay almost anything for the privilege of owning this beautiful antique."

Mrs. Powell paused and chuckled reminiscently. Her sense of humor is very keen and she evidently got much enjoyment from the experience.

Origin of "The Quaint Old Dinner Bell"

"Well, we called a family council. My husband suggested that we ask her $75 and that then, just as the bargain was to be concluded, our little golden haired daughter should run in, burst into tears and say, 'Oh you're not going to sell dear great-grandfather's dinner bell are you?' That would boost the price to $100.

"However, after amusing ourselves thus, truth conquered. I sat down and wrote the lady a prompt reply. I told her that we were not especially attached to the bell and would be glad to sell it at a fair figure. But, I added, it might save trouble if she simply got another like it, direct from Sears-Roebuck. That was where we had bought ours, about six months before, and the cost was $3.67 plus freight. No, she never answered my letter—or came for the bell."

A different kind of neighbor, according to Mrs. Powell, but one in whom there are many possibilities for development, is the immigrant farmer who has recently settled in such large numbers on the Island. As we drove to the station, the road swarmed with youngsters just out of school, and all apparently, members of the suicide club and willing to meet their end at that moment. Mrs. Powell, however, managed to avoid them neatly, and even had time to beam in her motherly way upon the small impeders of traffic. She had an eye for the cunning ones and the pathetic ones alike, and pointed out an industrious Polish housewife valiantly painting her house. "She has the right idea," said Mrs. Powell approvingly.

Then the talk came back to the pageant, and it developed that this was by no means her maiden effort. Another pageant, written for "Old Home Week" at Port Byron had preceded it, and, indeed, she had always liked to write.

The Lifelong Desire to be a Writer

"It was my great dream as a girl," confessed Mrs. Powell, "but I never thought I should actually achieve even a small portion of fame. When the pageant went so well at Syracuse, and was repeated successfully at Ithaca, during Farmers' Week, I certainly felt amply repaid for any work it may have meant in writing and staging it—that was all a labor of love, anyhow. And it seemed to me that much of the credit should have gone to Jared Van Wagenen, Jr., and all the other participants, who prepared their roles so carefully and were so fine in them."

The Port Byron celebration, it came out, centered largely in the historical pageant which Mrs. Powell wrote and which enlisted the services of all ages in its many picturesque scenes. Last July was the 50th anniversary of the founding of the Port Byron Academy, of which Mrs. Powell was a graduate, and the school was made the center of all the celebration. The population of this historic village was swelled from 1,100 to 6,000 on the evening of the pageant, and the realistic Indian and pioneer scenes were especially popular with the descendants of the original settlers in both the cast and the audience.

At dinner—as bountiful and generous a meal as one would expect from such a hostess—Mr. Powell joined the group, and the talk turned to the two daughters, absent at school, the family music, which was suggested by the presence of a piano and violin stand, and the unsuspected state of housecleaning which, Mrs. Powell solemnly stated, had upset the house from top to bottom. Its effects were quite unnoticed in the airy, comfortable downstairs rooms however, and when the guest departed it was with great admiration for the woman who could so cheerfully welcome company to a home in the throes of the spring seizure and who was so mistress of herself that she could sit down for a good, long, neighborly chat unconcerned by the goings-on of painters and plasterers over her head.

THE CORDED FINISH

There is nothing that gives a taffeta, satin or wool dress a more tailored effect than to finish it with cording. The neck, armholes (if the sleeves are set into an underwaist), waist line (if the waist is the long effect), the tunic or side panels—all can be finished nicely this way. If the method explained herein is carefully followed there should be no trouble in cording correctly.

First, cut bias pieces 1½ inches wide, sew together and press. Now hem one side flat, sew on where cording is desired just as you would sew on a facing. Turn seam back toward the dress and smooth down or press, put the cord next the seam and turn facing over the cord and draw facing tightly. Hold smoothly, for the cording cannot be pressed. With a double silk thread, back-stitch the cording, being careful to take the shorter stitches on top and the longer ones underneath, as the stitches on top shouldn't show.

I find this the easiest and best way of cording.—BILLIE HUGHES.

TWO PRETTY SUMMER DRESSES

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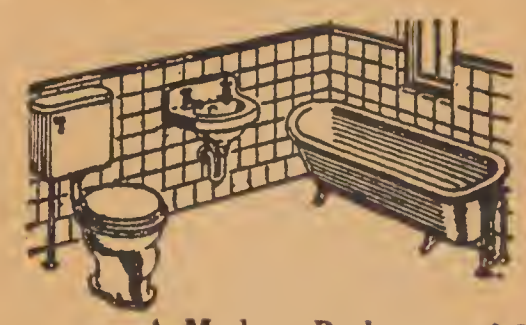

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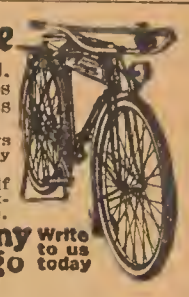

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Reviewing the Latest Eastern Markets and Prices

NEWS FROM WASHINGTON STREET

HERSCHEL H. JONES

IN the New York wholesale produce market section, the core of which is "Washington Street," or "the Street," as it is sometimes called to distinguish it from "the docks," conditions are always changing.

Cucumbers which had been quite scarce and bringing as high as $6 to $7 per bushel basket, suddenly fell to $3.50 to $4 for the top quality and as low as $1 per basket for ordinary. On Tuesday morning there were 50 carloads in the market, mostly from South Carolina.

New-crop Southern potatoes were in the heaviest receipts of the season on June 14. South Carolina Cobblers No. 1 brought from $5.50 to $6 per cloth-top barrel. Old crop white potatoes found practically no market unless fancy. Not enough sales of State potatoes to establish a market.

New Jersey white cabbage began to arrive in the market. The first shipment brought $1.75 to $2 per hamper of about 40 lbs. Crates of about 100-lbs. brought $3.25 to $3.50. Virginia cabbage was plentiful and declined to $1 to $2.25 per crate.

Green corn from Louisiana made its first appearance and sold readily at $6 to $6.50 per barrel of 8 to 10 dozen ears.

A few small lots of cherries were received from Hudson River Valley. Demand only fair. The market is heavily supplied with California cherries. Prices, per quart, various red sweet varieties, 5 @ 20c; red sour, 14 @ 15c. Four-quart baskets of early sweet varieties varied in price during the week from 75c to $1.25. New Jersey red sours in 12-qt. baskets sold at $1.75 to $2.25. It is reported that there is an unusually good crop of cherries this season in the Hudson River Valley.

STRAWBERRIES UNCERTAIN

Fancy strawberries continued to be in active demand, but the market for ordinary quality was irregular and dull most of last week. Hudson River Valley and Long Island supplies increasing, and bringing highest prices. A few sales were made wholesale last week at 30 to 35c qt. for fancy. On June 14, Delaware and Marylands sold at 10 to 20c and Jerseys 10 to 25c, mostly 15 to 20c. Carloads of strawberries were received during the week from Tennessee, Kentucky, Oklahoma and Missouri, and because of ordinary quality sold at much lower prices than those from nearby sections.

LETTUCE FINDS WEAK MARKET

Receipts of lettuce from Orange County, N. Y., increased, but much of it was of small size and not well headed. The demand was limited. Abundant supplies from Long Island and other sections caused a weak market. Orange County lettuce sold mostly at 75c to $1 per crate, with a few sales of fancy at $1.12½ to $1.35 and poor as low as 50c.

Long Island lettuce, romaine and spinach were plentiful and the market for them was dull. Wholesale prices in the farmers' markets were: Lettuce, best, per crate (32 quarts), 75c @ $1; romaine, per crate, 50 @75c; spinach, per crate, 50 @ 75c; fancy, $1.

The first green peas of the season from Long Island sold at $3.50 per bu. bag in the farmers' markets last week.

BUFFALO VEGETABLE MARKET

Homegrown vegetables in Buffalo market were limited to ASPARAGUS, which sold last week at $1 to $1.15 per doz. ½-lb. bunches; CUCUMBERS, 75c @$1.25 box; PARSLEY, 40 @ 50c per doz. small bunches; RADISHES, 20 @ 30c per doz. bunches; RHUBARB, 20 @ 30c per doz. bunches; SPINACH, 30 @ 50c per bu.

BUNCHED STUFF SELLS WELL

In the farmers' markets in New York nearby growers found a fairly active demand for bunched vegetables. Following prices represent wholesale sales of farmers to retailers and jobbers: BEETS—Per bunch, best, 7 @ 8c; small, 5 @ 6c. CARROTS—Per bunch, best, 5 @ 6c; fancy, large stock, 7c; small, 4c. KOHLRABIES—Per bunch, 3 @ 4c. LEEKS—Per bunch, new crop, 4 @ 5c; old crop, mostly 3c. ONIONS—Spring, per bunch, 2 @ 2½c; fancy, 3 @ 3½c. PARSLEY—Per bunch, curly, 2 @ 3c; small stock, best, 2½ @ 3c. RADISHES—Per bunch, red tip, best, 2½ @ 3c; ordinary, 2c; white tip, 2 @ 2½c; fancy, 3c; white radishes, 2 @ 3½c. RHUBARB — Per bunch, best, 2½ @ 3c; fancy large, 3½c; few sales, 4c; small, 2 @ 2¼c.

EGG MARKET CONTINUES POOR

Only a small percentage of the nearby eggs received direct from producers were of extra fancy light yolk quality. A few of the best nearby whites sold as high as 34 to 35c, but the great bulk of them sold wholesale within a range of 28 to 33c, chiefly 28 to 31c per dozen. Poor quality still lower, with some even at prices of fresh gathered firsts.

Extra fancy Jersey hennery whites graded to uniform high quality moved a little more actively toward the end of last week at top prices of 38 to 40c. Small lots of fancy brown eggs from nearby sections brought relatively high prices, with extra fancy Jersey hennery browns quoted at 36 to 37c.

General receipts of eggs continue heavy for the season. Accumulations of reserve stock are greater than at this time last year, and the market generally is pessimistic as to results. Speculative buyers are now interested only in prices much lower than previously. Total receipts in first three days last week were nearly 10,000 cases greater than in same period the week previous. It is reported, however, that the production is falling off in some sections due to hot weather.

As the weather gets hotter, especial care should be taken to get eggs promptly to market. Pending shipment eggs should be kept only in a cool, dry place.

DAIRY PRODUCTS FIRM

Wholesale prices on butter were only ¼c lower last week than the week previous. Buyers for cold storage have a tendency to hold off purchasing in anticipation of somewhat lower prices. The present prices, however, are lower than was expected a few weeks ago, and there has been a fairly steady movement into storage. Creamery extras, 92 score, sold chiefly at 38½ @ 38¾c, although the top quotation on June 14 declined to 38¼ to 38½c. Some buyers are paying 39½ and occasionally 39¾c per lb. for high-score butter. The amount of cold storage butter on hand in New York City on June 14 was 4,148,475 lbs.. compared with 3,400,700 lbs. on the same date last year. The total quantity on hand in the four large markets of the country, however, was about 4,000,000 lbs. short of last year. Receipts of butter in the first three days of last week were about 11,000 tubs greater than in the same period in the week previous.

The active offering of foreign butter in the New York market is undoubtedly having considerable effect in holding down price levels. Over 20,000 casks of Danish butter are reported to have been purchased by New York merchants for shipment within a month. Holland has shipped 500 casks of unsalted butter so far and other shipments are in transit. We are beginning to get a little butter from Argentine. The Baltic countries are inquiring as to possible outlet for their surplus production of butter here this year.

CHEESE HOLDS STEADY

State whole milk flats, fresh, average run, 24¾ @ 25c per lb., flats, held, average run, 28 @ 28½c.

SMALL BROILERS NOT WANTED

The market for broilers continues active. Large size colored stock and large leghorns are in good demand. The supply of white leghorn broilers is increasing, however, and the general run of leghorns sold at 40c lb. The very small broilers are not wanted, however, and bring only 25 @ 35c lb. Following were wholesale prices on other broilers, June 14: Colored, large, 50; colored, small, 45c; white leghorn, fancy, large, 42c.

Rabbits, live brought 25c lb.; old roosters, 12c lb.

DRESSED CALF SUPPLY LIGHT

Receipts of country dressed veal calves were light last week, but trading was slow and really choice calves were in very small proportion. Dressed calves of coarse quality but of good weight sold slowly at unsatisfactory prices with sales toward the last of the week chiefly at 14 to 15c per lb. Dressed lambs are still arriving in small quantity with light demand and sales mainly at $3 to 8 per carcass.

Demand was fairly good for live calves and prices were steady. Prime veals were in greatest demand and sold at $12.25 to 12.50 toward the end of the week. Some fairly good lots of live calves sold at $11.50 to 12.

HAY MARKET SLIGHTLY BETTER

Because of light receipts of hay, market at New York advanced and held firm last week, although trade was not very active. Considerable hay is now coming in by Catskill boats, mostly of low grades and some sales of shipping or No. 4 were down to $20 per ton. No. 1 timothy is very scarce and could be quite readily sold at $28. No. 2 is also firm.

Brooklyn markets are not quite as active on low grades of hay as Manhattan points.

The prospect for the hay crop this season continues rather unfavorable in the East. It is impossible, however, to be certain of a hay shortage because of conditions this early in the season.

CASH GRAIN QUOTATIONS

Cash grain quotations June 15 were as follows:

New York: Corn, No. 2 yellow, $1.02; No. 2 mixed, $1.01½; No. 2 white, $1.02; oats, No. 2 white, 55c; No. 3 white, 53 @ 53½c; ordinary white clipped, 53 @ 54½c.

Chicago: Wheat, No. 2 hard, $1.13¾; corn, No. 2, white, 84 @ 84¼c; No. 1 yellow, 84½c; No. 2 yellow, 84¼ @ 84½c; No. 3, 84c; oats, No. 2 white, 44 @ 45½c; No. 3 white, 43 @ 45c; No. 4 white, 43c; rye, 73c; barley, 62 @ 64c.

WOOL MARKET UNCHANGED

There was no change in the wholesale prices on wool last week. The market was slow. New York State fleece wool, unwashed, sold per lb. at: fine, 50 @ 51c, ½ blood, 54 @ 55c, ¾ blood, 54 @ 55c, ¼ blood, 52 @ 53c; low, ¼ blood combings, 45 @ 47c; common and grade, 36 @ 38c. Farmer's lamb skins, 70c each; packer's lamb skins, $1.19 each.

NO MARKET FOR BEANS

There was practically no trading in dry beans in the New York market last week, and quoted prices continued as follows: Domestic, Marrow, choice $10.75 @ 11, fair, $10.25 @ 10.50; pea, choice, $7.75 @ 8; fair, $7.25 @ 7.50; medium, $8; small white, $7.25 @ 7.50; red kidney choice, $8.15 @ 8.25; fair, $8; white kidney choice, $9; fair, $8.50 @ 8.75.

OSWEGO BERRY CROP LATE

The strawberry crop will be later in this county than in many years, according to several growers. Early berries are now coming into blossom, and with ordinary warm weather it is not expected that many berries will move to market before the third week in June. Blossoms were injured to some extent by frosts in the latter part of May. The fact that the plants were so backward saved many from more serious damage. Cherries suffered considerable with the frost. According to F. H. Bond, fruit specialist of the county, a count of Montmorency cherries showed that 65 per cent of the buds were dead. The amount ranged all the way from 20 per cent in some orchards up to 90 per cent in others. Thus far no damage is apparent in pear or apple orchards, although the heavy frost was experienced when they were in bull bloom.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on June 14:

Eggs, Nearbys (cents per dozen)	New York	Buffalo	Phila.
New Jersey hennery whites uncandled, extras	38 @ 40	......	......
Other hennery whites, extras	36 @ 37	......	......
Extra firsts	30 @ 32	27 @ 28	28
Firsts	28 @ 29	......	24½ @ 25
Gathered, whites, first to extra firsts	28 @ 31	......	......
Lower grades	26½ @ 27½	......	......
Hennery browns, extras	33 @ 35	......	......
Gathered browns and mixed colors, extras	29 @ 32	26 @ 27	......
Pullets No. 1	25 @ 28	......	......
Butter (cents per pound)			
Creamery (salted) high score	38¾ @ 39½	42 @ 43	......
Extra (92 score)	38¼ @ 38½	40 @ 41	39½
State dairy (salted), finest	38 @ 38¼	39 @ 40	......
Good to prime	37 @ 37½	32 @ 38	......
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade	Standards
Timothy No. 2	$25 @ 27	$20 @ 21	$21 @ 22
Timothy No. 3	23 @ 24	......	19 @ 20
Timothy Sample	15 @ 20	......	......
Fancy light clover mixed	26 @ 27	......	19 @ 22
Alfalfa, second cutting	29 @ 30	......	......
Oat straw No. 1	10	......	15
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	24	24 @ 25	20 @ 23
Fowls, leghorns and poor	......	23 @ 24	......
Broilers, colored fancy	45 @ 50	45	43 @ 60
Broilers, leghorn	30 @ 40	38	30 @ 45
Live Stock (cents per pound)			
Calves, good to medium	9½ @ 11½	11½	......
Bulls, common to good	3 @ 4½	4 @ 5½	......
Lambs, common to good	10 @ 14	12 @ 17	......
Sheep, common to good ewes	2½ @ 4½	3 @ 5	......
Hogs, Yorkers	7 @ 7¼	6 @ 7¼	......

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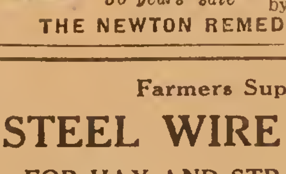
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The Cooperative at Accord

How a Successful Local Plant was Established

By CRAIG SANFORD

THE village of Accord is the center of a successful poultry community in Ulster County, New York. It always was a progressive town. Two years ago they organized a cooperative feed house of their own. This year the association did a $150,000 business. It showed them that they could put across something big.

During the last year or about a year ago, they were surprised to learn that only one other town in New York State surpassed them in the amount of eggs that were shipped out by rail. They then realized that they were a poultry community.

The local poultry club broadened out and its members came from both ends of the Rondout Valley to attend the meetings. Not only did it have lectures by visiting specialists, but it introduced a round table discussion of troubles that they were experiencing. At first they were typical of any movement of that sort. They were all ready to listen but no one was willing to admit that he never had any troubles. Finally a few of the most progressive men broke the ice and then they became relieved to find that they all had some problems to contend with.

Individual Selling Unsatisfactory

At a meeting of the local poultry club last July the question was brought up, asking how many members enjoyed a premium over the top market quotation. There was an awful silence and finally a few of the braver members admitted that they formerly did, but recently they had found it rather difficult to obtain. It soon became apparent that market conditions were similar to the status of the "old gray mare"—they ain't like they use to be! From the discussion that followed it seemed that no one was entirely satisfied with his returns. A few years back it was comparatively easy to take a train to New York and by visiting a few dealers to come back with an agreement that called for two or three cents over the top quotation. That time has passed, and the market that stands out as distinctly good is seldom held for any length of time. Either a competitor underbids your proposition or the steward is sugared. Then follows the usual run of letters to the effect that the quality of the eggs was poor, too many were being broken, and besides they were overstocked at the present, so would you kindly discontinue shipping until further notice? Yes, they had all had experience like that.

Perhaps every community has some one who is capable of leadership and willing to shoulder the reponsibilities that come with it. Accord was extremely fortunate to have such a person in Mr. Walter Voight. He was responsible for the undertaking of the grain cooperative idea. He carried it through the critical period and turned it over a complete success. As president of the local poultry club, he saw the possibilities of a cooperative marketing of eggs. The question was brought up in August and the first pool of the newly formed Rondout Valley Poultry Association closed on the 16th of November.

None of the marketing authorities approved of the idea. They all thought that cooperation to be successful must be absolutely necessary, and that the producers were too close to that greatest of egg markets—New York. At any rate, a canvass of the attendance of one of the meetings showed that the majority were willing to sign contracts to send all their eggs to such an organization for one year. From that time on, things moved rapidly. A good sized building was erected, where the eggs were to be graded, candled and packed.

Had Everything But a Market

November 9 was a big day. The doors were officially opened to receive eggs. Mr. Voight with an assistant did all the work involved. Like many a local marketing plant they found that even though they had a brand new packing house, labels, and even eggs, they had no market for them.

In the contract that the members had signed it was stated that they were under obligation to tell of any private market that they had formerly shipped to or of any house that they had heard were responsible men. This rule was put into effect and the information was investigated with the result that several good small markets were secured. These helped to introduce the eggs in various quarters. In the meantime sample cases were shipped to different houses.

A Product Equal to the Best

It was not long before the dealers who handled the eggs from Accord learned that New York had light yolked eggs which were just as heavy and sound as the eggs from New Jersey. When they reached the retail market they were usually sold as Jersey eggs, since advertising has created a demand for the latter. The New York market will pay a premium for the light yolked eggs and many New York poultrymen are feeding white cornmeal in place of yellow, and observing other factors that influence pigmentation. Vineland first acquired the reputation of having light yolked eggs.

Gradually it became apparent that New York eggs had all the qualities that were hitherto thought only found in Jersey eggs. The dealers were unwilling to drop what had now grown into value and were selling all their good nearbys for Jersey eggs. They state that their eggs have light yolks, that they weigh up as heavy as any pack on the market and that the grading is surpassed by none. The real test of the situation is that the eggs are shipped as such with instructions to return if unsatisfactory. They have never had a case returned. The eggs talked for themselves.

In regard to the methods of assembling the eggs, all members who previously shipped from Accord bring their eggs directly to the cooperative. Collections are made by auto truck at points from which eggs would have been shipped if the cooperative had not existed. The new pool each week starts on Friday morning and closes the following Thursday night. Payment for the eggs shipped that week is due by Tuesday of the next week and checks for the members are mailed out the next day.

Working Under Pressure

At the present time, when the market is glutted and the spring surplus is rolling in, the cooperative is selling most of its eggs at a premium and none below the quotation for that grade of eggs. They have now a staff of six people in the packing house. The first pool had only 28 cases, the last 223.

The organization costs are only two cents a dozen. And as the organization is only five months old they will be putting through more efficient methods gained only by experience, and enable a surplus to be laid aside. Other costs, such as express and commission, bring the total costs to about 3¼ to 3½ cents per dozen. The average shipper outside of the organization has been receiving several cents under the net price of the association. There seems to be no doubt around the section as to whether it pays. It is an organization which, as the opportunity presents itself, will enter into sidelines that are profitable.

BABY CHICKS

30,000 Chicks weekly
for June, July and August

June, July and Aug.

Hatched by experts with 13 years' experience in one of the largest, finest and best equipped hatcheries in the State. 80 per cent of our March, April and May orders were from old customers, and orders for thousands of Chicks were refused owing to insufficient incubator capacity. Order June, July and August Chicks early, at these rock-bottom prices:

S. C. White and Brown Leghorns.....10c each
Barred Rocks.....12c each
S. C. R. I. Reds and S. C. Black Minorcas.14c each
R. C. White Wyandottes.....14c each
Broiler Chicks (Heavy Breeds).....9c each
Broiler Chicks (Light Breeds).....8c each

Lots of 500.....½ cent per chick less
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100 per cent live delivery guaranteed. Prepaid to your door. $1.00 will book your order.

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Large, heavy-type Barron English S. C. White Leghorns of superlative quality mated to pedigreed cockerels. Each pen headed by Lady Storrs' Pen Cockerel (Dams' records of 240 to 271 eggs each in pullet year). Highest quality vigorous chicks by special delivery parcel post prepaid, 100% safe and live delivery guaranteed. $10 per 100, $18 per 500, $95 per 1,000. Also husky pure-bred Barred Rock chicks, $12 per 100, $57 per 500.

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Chicks BABY CHICKS
S. C. Rhode Island Reds, 13c each
Barred Plymouth Rocks, 12c each
S. C. White Leghorns, . 10c each
Mixed or Off Color, . . 8c each

These chicks are all hatched from free range stock. Safe delivery and satisfaction guaranteed. Descriptive booklet free. Chicks at the above prices will be delivered June and July.

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CHICKS for June and July Delivery

Our 19th Season producing good strong chicks from heavy-laying strains. S. C. White and Brown Leghorns, $9.50 per 100; Buff and Black Leghorns, $10 per 100; Barred and White Rocks, $12 per 100; Anconas, Black Minorcas, $11.50 per 100; White Wyandottes, R. C. Reds, $13 per 100. Mixed, $8.50 per 100. Order direct from this ad. We guarantee 95% live delivery. Catalogue free.

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Box R New Washington, Ohio

Chicks—Breeders—Eggs

S. C. White and Brown Leghorns, White Wyandottes, Barred Rocks, R. I. Reds, both combs Light and Dark Brahmas. Show and Utility Quality. 16th year. Catalog free.

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RIVERDALE POULTRY FARM, Box 565, Riverdale, N. J.

BABY CHICKS Hatched by the best system of Incubation, from high class bred-to-lay stock. Barred and Buff Rocks, Reds, Anconas, Black Minorcas, 12c. each; White, Brown, Buff Leghorns, 10c. each; broilers, 7c. each. Pekin Ducklings, 30c each.

Safe delivery guaranteed by prepaid parcel post

NUNDA POULTRY FARM NUNDA, N. Y.

BABY CHICKS We know how to produce strong, husky, liveable Chicks. High quality, moderate in price. Bar. Rocks, $14; Reds, $16; Barron White Leghorns, $12; Brown Leghorns, $13; Anconas, $21. Assorted, $10. Prepaid, full count.

Hummer's Poultry Plant, Frenchtown, N. J., R. 1

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Barron S. C. W. Leghorns, Barred Rocks, and R. I. Reds, 15 cents each and up. Hatches every week. Satisfaction guaranteed. Catalogue free.

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Hampton's Black Leghorn Chicks

Get my free circular before you order chicks—tells why the BLACK LEGHORN is the greatest layer and most profitable breed on earth. Write today.

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CHIX Bar. Rocks, 11c; Reds, 12c; Wh. Leghorns, 9c; Mixed, 8c. 100% arrival guaranteed. Order from adv or circular free. TWIN HATCHERY, McALISTERVILLE, PA.

LARGE STOCK fine Poultry, Turkeys, Geese, Ducks, Guineas, Bantams; Collies, Pigeons, Chicks, Stock, Eggs, low; catalog. PIONEER FARMS, Telford, Pennsylvania,

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Baby Chicks and Hatching Eggs

25 Chicks $11.00 50 Chicks $21.00 100 Chicks $40.00

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Our birds have won seventy-two ribbons, including 18 first, 12 specials and 2 silver cups, at six of the leading shows the past winter. *Order direct from this ad.*

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HILLPOT QUALITY CHICKS

Post Prepaid. Safe delivery guaranteed anywhere east of Mississippi River.

REDUCED PRICES PROMPT DELIVERIES

	100	50	25				
White Leghorns	$12.00	$6.50	$3.50	Barred Rocks	14.00	7.25	3.75
Black Leghorns	12 00	6.50	3 50	R. I. Reds	16.00	8.50	4.50
Brown Leghorns	14.00	7.25	3.75	White Rocks	16.00	8.50	4.50
				White Wyandottes	18.00	9.25	4.75

W. F. HILLPOT Box 29

Cut For Number "One"

Produce Better Hay By Harvesting at the Right Time

By L. A. DALTON

THE United States grades for timothy hay are numbers 1, 2, 3, 4 and sample. When we stop to consider the difference in market price for these various grades it would seem that farmers should get busy and produce better hay or get out of the business. All the large terminal market reports show that No. 1 hay brings at least two dollars more per ton than No. 2, and in many smaller markets the difference is as much as three to five dollars per ton. As we go down the scale from No. 1 to sample, the difference in price is relatively much greater, and in fact the lower grades are hardly salable at any price. No. 1 hay is the grade that is mostly in demand to-day and there is less of it produced for market than any other except possibly No. 4. This is shown by the "Market Reporter," which states that out of 387 cars of hay inspected during March; 3 per cent was No. 1, 33 per cent No. 2, 50 per cent No. 3, 1 per cent No. 4, and 13 per cent sample. Please notice that 64 per cent, or almost two-thirds were of the lower grades, Nos. 3, 4 and sample, which brought from seven to fifteen dollars per ton less than No. 1.

Only 6 per cent of the certificates issued under federal grades showed as much as 5 per cent of weeds and other foreign material. Of the hay made sample grade, less than 8 per cent was due to the presence of 25 per cent or more foreign material, the amount necessary to throw the hay into sample grade according to United States standards. Therefore, if, out of this very large amount of low grade hay, there was a relatively small percentage of weeds and foreign material, cutting at the wrong time and bad conditions such as objectionable odor, mold, must, moisture, or heating must have been largely responsible for the low grades.

The sample on the left shows timothy in bloom, the time to cut for No. 1 hay. On the right are mature timothy heads, shattering, which, cut at this stage make No. 4 hay

reached. Grades, time of cutting, and color percentages are shown in the accompanying table:

The table shows that in order to get No. 1 hay, timothy must be cut in full bloom. Farmers who have large acreages should begin to harvest the hay so that most of it will be cut at this stage rather than later, which is the usual custom and having most of it fall into grades 3 and 4. The writer saw thousands of acres of hay last season that was not cut until the seed was shattering from the head, and the leaves were all brown and falling off, thus producing a hay that to-day does not have a value that would warrant hauling to market. Therefore, it is standing in the barns where it will stay or be fed to cows.

There are thousands of tons of timothy hay stored at the present time in central New York, of such low quality that dealers will not buy it. Central New York is one of, if not the leading, timothy hay producing areas in the country, but dealers in that region state that No. 1 hay can hardly be found; indeed not enough to supply the demand. Therefore, they are combing Ohio and Michigan for the better grades. The extra freight rates from points in these States over central New York points to the eastern hay markets would mean in many cases the difference between profit and loss.

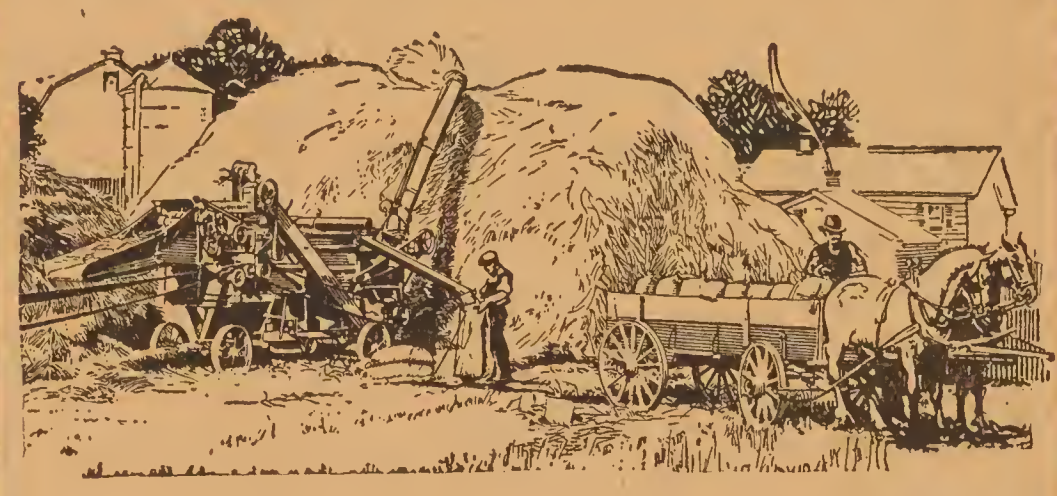
For Milk or Market

When presented with the facts above, many producers console themselves by saying they are not raising hay for market, but for home feeding, principally for milch cows. A very good excuse but no argument. The fact of the business is that thousands and thousands of tons of New York hay are put upon the market annually and at present at least, most of it is of the lower grades. But even though it is fed on the farm that produces it, experiments show that much greater feeding value and only slightly less yield are obtained when the hay is cut from in full bloom to beginning of dough stage. Besides, timothy is not, under any condition, a suitable roughage for milk production. Milk producers trying to grow their own roughage might better produce No. 1 timothy hay for market and buy clover or alfalfa from their neighbors if they can't raise these legumes.

Although there are some excuses, such as weather, shortage of labor, etc., for producing low grade hay; there are no sane arguments for it, especially when the demand is for the best and there are definite standards to go by to produce hay of the highest quality.

Timothy Maximum Clover 5%	Latest Time of Cutting	Maximum Percentage of		
		Brown Leaf Surface	Brown or Bleached Heads	Bleached or Off-Colored Stems
U. S. No. 1.....	In full bloom.....	40	2	5
U. S. No. 2.....	Half seed in dough.....	70	10	20
U. S. No. 3.....	2/3 seed mature.....	90	35	50
U. S. No. 4.....	More than 2/3 seed mature	100	100	100
U. S. Sample...	Hay of the class or sub-class not coming within the requirements of any of the numerical grades or which has been threshed or contains 25 per cent or more of foreign material or has any objectionable odor, or is heating, moldy or musty, or is otherwise of distinctly low quality.			

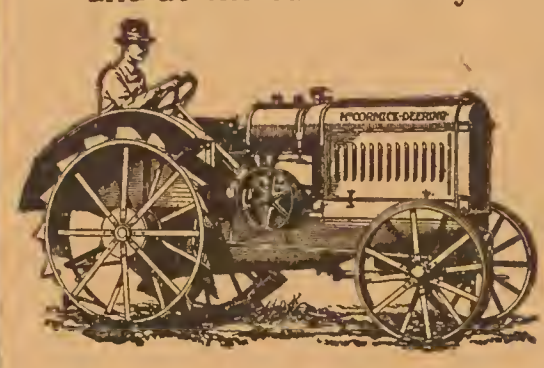
Although weeds, foreign material and kinds of plants in the mixture have something to do with the grades, it is and should be generally recognized that color is the pre-eminent factor that sells hay, and due to this the United States grades are based almost entirely upon this factor. By careful analysis of a very large number of samples of different grades, percentages of brown leaf surface were determined of hay cut at different times or stages. A direct correlation between brown leaf surface and stage of maturity was found. Cutting hay in the "first" or "second," "blow" or "bloom," is like planting corn "in the moon"; there is nothing to it. Corn should be planted in the ground and hay should be cut when a certain stage of development is



Thresh Your Own Grain with a New Racine Thresher

EVERY day you have to wait for the threshing crew after your grain is ready to thresh is likely to mean a big loss. Grain left in the shock is subject to shattering by wind and storm, will sprout if it is wet, the birds and insects destroy it, and the shocks are often blown down.

Very few, if any, of these losses are necessary. With your own small thresher you can thresh when your grain is ready—no delays, no losses from rain, wind, birds, and insects. You can thresh with your own help or exchange men with a near neighbor. With the grain threshed early you can sell it when the market is best and at the same time you have the added advantage of having your fields cleared early for pasture or plowing.



A **New Racine** 20 x 32 or 24 x 40 thresher is the machine you want. It can be operated with the average 20 to 30 h. p. farm tractor.

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AMERICAN AGRICULTURIST

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$1.00 PER YEAR | JUNE 30, 1923 | PUBLISHED WEEKLY

Independence Hall, Philadelphia, where the Declaration of Independence was Signed July 4, 1776

The Rural Health Problem—By Paul Luttinger, M.D.

The Aftermath of the War

A Summary of the Terrible Situation in Europe To-day—A Radio Message

By HENRY MORGENTHAU, SR.
Ex-Ambassador to Turkey

DURING the early part of the Great War, we occupied seats in the galleries set apart for neutrals and were deeply interested in watching the various gladiators, in the guise of nations, enter the arena and fight each other with great vim, determination, and an inexorable hatred and barbaric vindictiveness. The outcome of the struggle was quite doubtful, and as the prospect of one or the other becoming victorious, constantly varied, the interest of the observers was sustained throughout the performance. In fact, no opera, drama, or moving picture ever had so many thrilling events to fasten the interest of the observer. A large part of our people led by such men as Col. Theodore Roosevelt, General Leonard Wood, and New York's Mayor, John Purroy Mitchel, were chafing from the very beginning to enter the lists and participate in the fight. While a large part of the American community thought that it was not our concern and that the European powers would have to settle this dispute amongst themselves, we felt that the unavoidable clash between the military establishments of Europe had come at last and that these countries were simply paying the penalty for believing that disputes must be settled by force instead of by arbitration or justice. It was hoped that the United States be allotted the grateful role of peace-maker, and as such enter the arena, stop the fighting, and adjust the differences between the contending parties, and establish a permanent peace which would prevent future wars.

It was only when Germany disputed our right to the free use of the sea, and also had the audacity to suggest our restricting ourselves to one ship per week, confine it to the one Germany would suggest, and finally proclaimed her right to a free and unrestricted use of the submarine as a method of warfare, that our patience became exhausted. We ceased being neutrals, threw off our indifference, stripped for action, and entered the contest with as great a vim and determination to win as any of the original participants. From indifferent onlookers we were suddenly converted into enthusiastic and vigorous combatants. Our entrance threw the balance of power on the side of the allies and assured the victory. President Wilson through his proclamations put the dispute on a higher plane and showed that it was not a mere struggle for commercial advantages, but that it was a fight for civilization, and that it should be made a war to end war, and to make the world safe for democracy.

The great contestants had dug each other into their trenches and were waiting for the slow process of attrition to determine the contest or reduce both of them to a state of exhaustion and create a stale-mate. The western line of battle extended from the Swiss boundary to the North Sea. The entire Balkans were aflame; Russia was still active, both on the offensive and on the defensive; the British were valiantly fighting in Palestine to retrieve their defeat at the Dardanelles. Such international commerce as remained was at the mercy of the German submarines.

We fought with the allies a great and noble fight—our achievements amazed the world by their splendor and gigantic proportions—no short article such as this can even attempt to do justice to it.

The next act in the drama was that of the Armistice and the Peace Conference. Although we took but a minor part in the war itself (owing to our late entrance) we took a most important part in the arranging of peace. This was largely due to the fact that we wanted no part of the territory of any of the defeated countries. We had no axes to grind as to future arrangements and our disinterestedness was apparent to all. Unfortunately some of *our* most important requests were disregarded, and instead of arranging for reparations that could be met by Germany, a method was adopted which instead of creating peace has left the relations of many of the countries towards each other in a most inimical state, if not actually at war.

It is difficult for us Americans to understand the tremendous effect the dissolution of four empires has upon the general condition of the world, especially where the fate of each one differs so widely with that of the others.

Russia, although an ally of the victors of the war, was ruined through its experiment of Bolshevism, and is now suffering the consequences of her futile attempt to apply the iconoclastic methods of a desperate revolution instead of attempting by saner and legal methods to correct the evils under which she was suffering.

Austria, deprived of much of her territory and reduced to a population of six million, proved such a pathetic figure that all her former enemies became sympathetic and have combined to give her another chance, not as a great empire and world-power, but as a State equivalent in size, but not in importance to Illinois, without however, the advantages of free intercommunion with forty-seven other States.

Turkey, at first, totally demoralized and deprived of Arabia, Mespotamia, Palestine, and Syria has now defied the decrees and treaties of the allies and is struggling desperately and defiantly for her existence.

Germany, which but five years ago defied all of the European powers is to-day prostrated—and her currency in a downhill race has passed Austria and Poland in its course, and like Russia is reaching the vanishing point, and is now under France's military heel. It is almost impossible to realize the tremendous contrast of the present positions of these countries with those they held six years ago. The fear of German world domination has been replaced by the fear of France's military supremacy on the European continent. The forty million Frenchmen, having at present the best equipped and best officered army in the world, are about convincing Germany and her former allies that she is determined, single-handed if necessary, to see that those provisions of the Versailles Treaty, which cover the payment of her damages and her security for the future will be carried out.

Neither Germany, Great Britain, Italy, nor the United States ever suspected that France would possess the tenacity that she has recently displayed. It has taken them all this time to realize that it was not a case of French bluff but quite the contrary, idèe fixé—what we would call in English, grim determination to the bitter end. Unfortunately, most of the countries are absorbed in attending to their own affairs.

The United States Government publicly so acknowledges and has repeatedly asserted its belief in isolation and non-interference in European affairs. Our European friends accuse us of having failed to complete the performance of our part in this great world drama and of having quitted before the completion of the last chapter which was not the Armistice, but the secure establishment of peace.

Great Britain is so completely engrossed in absorbing into her empire the territories that fell into her possession since the beginning of the war, and also in pacifying her discontented and unemployed laboring classes, that she, too, is abstaining from active participation in European continental disputes.

It is generally believed that the present Russian Government has to restrict the use of her military forces for defensive purposes and that any offensive campaigns even against Lithuania or Poland, and certainly any conjunction with Germany would cause its downfall, so that at present it looks as though France, with Belgium's approval and her friendly relations with the Little Entente, jointly controlling an active army of about two millions, is going to dominate the European situation and intends to exercise her

(*Continued on page* 542)

Great News!

WE are very glad to announce that American Agriculturist has made cooperative arrangements with the New York City office of the New York State Department of Farms and Markets and the American Telephone and Telegraph Company's broadcasting station WEAF, whereby we will furnish from the WEAF station a regular radio market service. Last minute prices direct from the New York City markets will be broadcast from WEAF station on our program, every day except Monday and Saturday at 10:50 A. M. standard time.

The State Department market experts study the market conditions and prices every day and every night. The ability of these experts insure absolute accuracy, and this arrangement will give every farmer, if he so desires, the very latest change in the market so that he can govern the shipments of his products accordingly. In every neighborhood there is now at least one radio. Make arrangements with your neighbor who has that radio to telephone you the information. If you can get these reports and act on the information, they will save you hundreds of dollars.. The greatest problem of farmers is marketing; the greatest problem of marketing is to avoid gluts; accurate up-to-the-minute information will help to keep your stuff off the market when the market is over supplied.

Remember that the time is 10:50 A. M. Men folks will be in the field at this time, but the women can take down the information as it comes out of the air. Special blanks on which the reports may be copied as you listen in will be furnished by American Agriculturist and the State Department free of charge on application.

This arrangement is an outgrowth of the farm radio program which American Agriculturist has been conducting for months with WEAF. Farm speakers and experts, the best in the country, broadcast every Wednesday evening at 6.50 P. M. This service will also be continued.

Tune in at 6:50 Wednesday evening for the best farm speakers, and at 10:50 A. M. Tuesday, Wednesday, Thursday and Friday for the latest information and prices of the greatest market in the world. The wave length of WEAF is 492 meters. We believe this is a real opportunity for the broadcasting station, the Department of Farms and Markets and American Agriculturist to render extremely valuable service. Tune in and use it—and tell us how to make it better.—The Editors.

American Agriculturist

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Volume 111 | For the Week Ending June 30, 1923 | Number 26

The Rural Health Problem

A Doctor Tells Why Country Physicians Are Growing Scarce

By PAUL LUTTINGER, M. D.

THE numerous letters in the American Agriculturist suggesting various remedies to the dwindling of country physicians, prove that the problem of medical service in rural communities has become a burning question and that its solution is becoming increasingly difficult.

During his first term, Governor Smith had realized the seriousness of the problem and had directed the State Department of Health to make a thorough survey of the situation. At the beginning of his present administration, realizing that there was a considerable difference of opinion regarding the matter, he invited some two hundred physicians, representing the medical societies and the medical colleges from all over the State, to a conference on several medical questions. The conference met on February 26, 1923; this being the first time in the history of the Empire State that the chief executive officially recognized the interest of doctors in proposed legislation that might affect them. The conference appointed a committee for the purpose of studying the rural health problem, among other questions, who made a report to the Governor within a short time.

This report, owing probably to the short time at the disposal of the committee, is somewhat disappointing. Basing themselves on the statistics collected by Dr. Hermann Biggs, the State commissioner of health, they reach different conclusions. The extent and urgency of the problem are minimized and the wisdom of passing legislative measures for the subsidy of rural health agencies is deprecated. As it often happens with officials of organizations, those representing the State medical society are inclined to be conservative and seem to be morbidly afraid of such catch-words as paternalism, State-socialism, etc., although there is little reason to be afraid of any change, no matter how radical, when one reflects that the average income of physicians in this State is about $900 per year. Furthermore, from the farmer's point of view, if the Federal and State Governments may establish experimental stations for the improvement and sanitary care of his livestock and crops, there is no earthly reason why provision should not be made for the prevention of disease to himself and his family.

Governor Smith, therefore, acted with rare wisdom, when he recommended, in his message to the legislature, that steps be taken to remedy the rural health situation at the earliest possible moment, and that subsidies be granted whenever and wherever necessary.

Factors Involved in Rural Health Problems

A thorough study of this problem shows that it is not peculiar to New York State alone; nor to the rural districts of the United States, exclusively. Every State in the union is confronted with the same difficulties. Pennsylvania has taken legislative action in the matter which unfortunately has degenerated, in many instances, into a source of political preferment. New Hampshire has just passed a law by which the various counties are to establish hospitals for which the residents are to be taxed. European countries, for a number of years, have had to contend with the rapidly diminishing number of country practitioners and a recent report in the British Medical Journal shows that the problem has entered an acute stage in England.

Hitherto, those who have tried to remedy the evil, have taken in consideration only some of the factors which keep physicians from establishing themselves in the country. A thorough study shows that they are numerous; let us classify them:

Owing to the unfortunately shrinking population of the rural communities, the physician finds it increasingly difficult to gain a fair livelihood, without undue hardship. Why?

The doctor must spend a large amount of time visiting his widely scattered patients. This becomes especially burdensome in districts where the roads are bad and during the winter when the bad weather prevents communication altogether, or requires an expenditure of time entirely out of proportion to the compensation.

Only a Few Survive

It is true that there are still a few sublime souls, like the Dr. Brown, so lovingly described by Mrs. R. M. Roberts in a recent article in the American Agriculturist, who labor in the vineyard of the Lord without any thought of monetary considerations. But when ministers of the church themselves are insisting on getting a higher living, owing to the increasing demands made upon them by the exigencies of modern life, no one should expect the physician to be the only self-sacrificing individual in the community. It would be an injustice to himself and to those depending upon him. Even a young physician, just out of college, could not do it if he would, as he is usually heavily in debt for his college course; the expenses of a modern college course amounting to from $5,000 to $8,000.

A generation ago, the country physician not only had a larger population to draw from, but treated all classes—the rich, the poor and the middle class. Nowadays, the wealthy and even the middle class, thanks to the improved methods of transportation, go to the city and even to the metropolis for the cure of any ailment which seems to become more serious than an ordinary cold. Those depending on the rich, such as poor relatives and servants are also attended by the city physician or hospital.

The cost of living was formerly lower in the country; but this difference has disappeared. This is due to the fact that clothing, furniture and other household necessities have to be fetched from the city and that the cost of ordinary food is about the same. Any article of food to vary the monotony of the rural diet must be brought from the city.

The fees paid the country practioner are lower than those paid to his urban colleague, besides, he is supposed to furnish his own drugs in the majority of cases. Furthermore, he loses valuable time doing the work that the nurse and orderly are delegated to do in the city. As an added drawback may be mentioned the fact that his bills are not paid promptly, while the city practice is a 90 per cent cash practice.

The average farmer is not prone to call the doctor frequently while the city physician has a lucrative practice from slight or even imaginary ills.

Years ago, the sanitary conditions in the country were better than in urban communities, or rather city conditions were worse than those prevailing in rural districts. The reverse is true now, as may be gathered from the statistics collected by the State department of health. While in former times the farmer boy was warned against contracting disease in the city, the vacationists are now vaccinated against typhoid fever before they go to the country. The water supply, the sewage disposal and the unsanitary conditions of many homes, are sources of constant danger to the country physician's family.

Hospital accommodations are almost nonexisting in most of the rural communities and the physician knows that in case of serious illness or accident to his family or himself, he would have to be transported to the distant city, which means lessened chances of recovery due to exposure or shock.

Nurses are scarce in the country; consultants, specialists and diagnostic laboratories are found in the cities only. All this adds to the dread of sickness, not counting the extra expense that it may involve.

The schools in the country are of the grammar grade and the children must often go far to reach the "little house with the red roof." If he wants his children to receive a higher education, the doctor must send them to district high schools or still farther colleges. As an alternative he may employ expensive private tutors. In most instances

(*Continued on page* 542)

Keeping the Country Doctor

WE have had a number of discussions by our readers on the problems of medical service in the rural districts. These discussions were written by laymen. Here is an article from a doctor's standpoint. Do you agree with him?—The Editors.

Editorial Page of the American Agriculturist

AMERICAN AGRICULTURIST

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A Fourth of July Excursion

THE cultivating and the hoeing were pretty well caught up. The haying had not begun. To-morrow was the Fourth of July, and the boys were going on an excursion trip to faraway Penn Yan. Oh, boy, what a grand and glorious feeling it is after working for a year through the dull monotony of farm work without going anywhere or seeing anything, to go on an excursion farther away from home than you have ever been before!

The next morning the cows were hustled into the barn and milked. The chores were finished early, and by five o'clock breakfast was over and the boys ready to start. One of the farm plugs was hitched to the old buggy and down the valley they went ten miles to the nearest railroad station where they would catch the excursion train.

Can you remember when it was fun to ride on the steam cars? If so, you will appreciate the joy of the boys who had never been on the cars more than three or four times in their lives, as they climbed on the excursion train and rushed for fifty miles or more through the fine river valley. If you have lived all of your life, never having seen a body of water bigger than a mill pond, you will appreciate also the joy and wonder and anticipation of the youngsters when they boarded the excursion boat, ready to make the trip down one of New York's beautiful Finger Lakes.

If you were once a green, lonesome, country boy, you may perhaps be able to understand the feeling of awe and the little twinges of homesickness which they felt as they looked from their boat, off towards the east, and knew that between them and their home there lay many beautiful, but strange valleys bordered by an unknown number of ranges of hills. What a fearful feeling just to think what would happen if they should lose their excursion tickets and the few cents of extra change which they had in their pockets, and have to walk all the long and unknown distance home! Rapid transportation has come so fast with the automobiles, that few of us realize how long the country miles once were, or how small the radius within which country people were confined even a few years ago.

If when you were young, you did not hear a band or an orchestra more than once a year, and were so starved for music that even an old mouth-organ sounded mighty good, you will know how fine the orchestra on the boat seemed to the boys when it began to play the songs and the tunes that were popular twenty years ago. Why is it that nowhere is music so sweet as on the water; or is it the holiday spirit which makes us like it so well?

So short is the life of most popular music, that out of the long list of songs and tunes which the boys heard the orchestra play that day, and which were being played, sung and whistled all over the land, hardly one is left to-day. One of these in particular had a lilt and a swing that ought to have given it longer life. How many of you can still whistle the tune the words of which went something like this:

The good old summertime, the good old summertime,
I'll hold her hand and she'll hold mine in the good old summertime.

So accompanied by the lilt of the music, the rhythm of the boat's propeller, and boyhood's happy dreams, they sailed away to Penn Yan, and back again to their train and so came at eventide to the livery stable, where the old horse had been patiently waiting all day to carry them home. How good the familiar scenes looked to them, for while they were gone only a day, it seemed a very long time indeed, for within that day had they not traveled far, and had there not been "strange lands and sights for to see." So ended a holiday and a Fourth of July always to be pleasantly remembered.

In these modern days when the automobile, the movies and the radio have brought the whole world to the farmer's front door, our boys take trips and see sights beyond the wildest imagination of boys of a generation ago; but we sometimes wonder if the very abundance of travel and entertainment does not lessen enjoyment and appreciation so that a modern youngster can never know the real fun of an old-fashioned once-a-year holiday excursion.

Farm Prices Slowly Rising

NOT before in years have farmers paid so much attention to the trend of prices of farm products. These prices are improving somewhat and the question in everybody's mind is whether or not this improvement is going to continue.

On this point, G. F. Warren, the farm economist of the New York State College of Agriculture, said in a recent statement: "Of the five most important agricultural products—butter, cotton, hogs, beef and wheat—the first two are now as high as the general price level. Hogs, beef and wheat are still far below the general price level. There is an excessive production of hogs. Therefore, it is to be expected that hogs will be low in price for some time. The grain products usually rise in price about two years after prices of industrial stocks rise. The reaction from low grain prices and the high demand for grain to feed animals will probably make high priced grain next year, unless weather is unusually favorable this summer."

This information will be interesting to dairymen who purchase large supplies of cattle feed. Since Dr. Warren issued this statement, the government crop reports show that, with the exception of oats and barley, the principal grain crops of the country will be smaller this year than last. The reduction in wheat is estimated to be about five or six per cent smaller than last year.

Dr. Warren further points out that the most striking change in New York farm prices is in the price of milk. The pool price of milk is now 59 per cent above the pre-war average. A year ago it was only 9 per cent above the pre-war average. Of twenty-four farm products in New York, six are as high as the general price level. These are beans, butter, chickens, lambs, wool and cabbage.

"The purchasing power of New York farm products is now 88; last month it was 82; last October it was only 78. This shows that farm prices are gradually being adjusted to the general price level."

Eastern Apples to the Front

IN looking over an exhibit from the New York City Department of Markets recently, we were very agreeably surprised to note that New York State furnishes more than 45 per cent of the apples consumed in the big city. The State of Washington is next in line with about 25 per cent; Oregon sends 8 per cent; California, 3 per cent; Virginia, about 3½ per cent; British Columbia, 3½ per cent; and all other sources about 12 per cent.

It is practically impossible to buy eastern grown apples on the fruit stands in New York City. For this reason, one easily comes to the conclusion that nearly all of the apples consumed in the city come from the West. But even though New York and other eastern States are the deciding factors in the New York market, there are still too many western apples sold here to the exclusion of our first class eastern fruit.

It is for this reason that we are heartily in sympathy with the plans for the Eastern Apple Exposition and Fruit Show to be held in the Grand Central Palace, New York City, November 3 to 10. City consumers are going to have an opportunity through this exposition, as never before, to get acquainted with the beautiful and high quality eastern fruit; and the show, together with the publicity it will receive, will, without question, do much to increase the consumption of eastern grown apples.

For a Standard Rivet

THREE mowing machines, all of different manufacture, were recently being put in order on our farm to cut a large acreage of alfalfa. When we came to the cutter bars, we found that a different rivet was necessary for the knives of each machine. This lack of standardization of even the simplest and commonest parts of farm machines is absurd, expensive and annoying. Farmers will bless the day when the manufacturers simplify and standardize the parts of different makes of farm machinery.

Buy Your Coal Now

FARMERS are large consumers of coal. Last year because of the coal famine, many farmers burned wood again for the first time in years, and unfortunately a good deal of it was green wood. This is just a hint to put in your winter supply of coal the very first time you get a let-up in the farm work this summer. There is no prospect of its being any cheaper; it may even go higher, and the authorities tell us that it will be mighty scarce again this coming winter.

Quotations Worth While

"Music is the common language of all nations and tribes. The man who knows how to play, knows how to reach the heart of anybody in any country, climate or condition."—BURLEY AYRES.

* * *

To believe in men is the first step toward helping them. —ANONYMOUS.

League Reports Big Year's Work

Delegates Optimistic as They Transact Business at Large Annual Meeting

THE annual meeting of the Dairymen's League Cooperative Association, held in Utica, N. Y., on June 21, maintained the record which the League has had for years of holding the largest and most enthusiastic meeting of farmers in eastern United States. More than 1,800 men were present, nearly a thousand of whom were delegates coming from every community in New York and five adjoining States where the League is organized.

The meeting was called to order at 10 A. M. standard time, by President George W. Slocum, of Milton, Pa. After the usual preliminaries, the reports of the president, secretary and treasurer were read.

In the president's report, he called attention to the immense amount of business which the association had transacted during the year. These figures are given in another place on this page. He explained to the delegates how the work of the association is assigned to ten principal departments, over which is a trained man responsible for the success of his particular specialty. These departments are production, sales and advertising, secretary's department, banking, accounting, engineering, traffic, legal, purchasing and general office management.

In speaking of the chief aims upon which the association was concentrating its effort, Mr. Slocum said: "We have selected these two lines of production in which your association has a distinct competitive advantage. Fluid milk first and evaporated milk second. This does not mean that future changes in marketing conditions may not lead us into other endeavors. For this coming year, however, our whole effort is being thrown into selling these two leading products. A year ago we had only 400 cans of direct fluid trade, while to-day we have over 8,000, and of this only 2,000 were obtained by purchase."

The president then proceeded to outline in some detail the work of each of the different departments. He called attention to the new trade mark "Dairylea," which the association has established and to the large advertising campaign which was being conducted. He said that the association recognized its responsibility as a service organization to the general public, especially to the consuming public.

"Our purpose" he said, "is not to fix the price of commodities which we have to sell, but so to work out the problems of distribution and marketing that the farmer will get a fair price for his milk and the consumer will get all the benefit of universal quality and service which orderly marketing can provide."

The president's reference to the New York problem is significant as an indication of what the association may have in mind as to its future activities in New York City. As to the future, he said, "this problem remains to be solved and we believe the League must become a larger factor in the direct-to-consumer business before it will have a sufficiently great influence on the metropolitan market to increase the farmer's net return. Your officers and directors believe this is the big problem which faces the League and should be solved during the next twelve months."

In conclusion, President Slocum said, "In the history of mankind, are certain milestones that denote the time and the place where humanity as a whole took forward steps towards better living conditions, sometimes toward better understanding of spiritual matters and sometimes toward better economic conditions that vitally affect us. Such a forward step towards better economic conditions is now being taken throughout the land in the cooperative movement."

League Officers For 1923-1924

THE new Board of Directors of the Dairymen's League Cooperative Association met on Friday, June 22, for organization and election of the Executive Committee and officers for the coming year.

The officers are the same as last year, namely: President, George W. Slocum, Milton, Pa.; Vice President, John D. Miller, Susquehanna, Pa.; Secretary, Albert Manning, Otisville, N. Y.; Treasurer, B. M. Kilpatrick, Utica, N. Y.

The members of the Executive Committee are: George W. Slocum, ex officio; Paul Smith, Newark Valley, N. Y.; W. U. Rixford, Wellsville, N. Y.; F. H. Sexauer, Auburn, N. Y.; J. A. Coulter, Woodville, N. Y., Mr. Coulter is the only new member of the Board, who takes the place of John S. Petteys of Greenwich, N. Y.

Secretary Albert Manning of Otisville, N. Y., gave in his report the membership status of the organization. These figures are given elsewhere on this page. Mr. Manning also outlined the methods by which the cooperative association keeps in contact and works with its farmer membership.

B. M. Kilpatrick, the treasurer, reported that on March 31, 1923, at the end of the fiscal year, the association owned land, buildings and equipment to the value of $5,950,767.99; mortgages standing against this amount were $1,023,347.07; current assets of the association were on March 31, 1923, $12,000,000, with liabilities of $6,500,000. Mr. Kilpatrick said that the thirteenth check will give the members about $633,000.

Two speakers kept the audience in a high state of enthusiasm during the afternoon session. Mr. John D. Miller, vice president of the association and president of the National Milk Producers' Federation, told the details of the activities of the nationally organized dairymen.

Speaking of the tariff on dairy products, Mr. Miller said: "Without going into the merits or de-merits of protective tariff, all will agree that as long as it is the established principle of the American people to have a high protective tariff, farmers should receive a protection which bears a fair relation to the protection of other industries. It violates every principle of justice for a farmer to buy his necessities in a highly protected market and sell his products in an un-protected market."

Referring to the statements of some milk dealers that "It is unethical for the Dairymen's League to market the milk of its members in the city," Mr. Miller demanded to know when, where, and by whom was the right of farmers to market their products surrendered.

The last speaker was John M. Kelley, of Wisconsin, vice president of the National Holstein-Friesian Association, and general counsel of Ringling Brothers Circus.

Mr. Kelley called attention to the fact, that farming does not pay and he placed the responsibility for this upon the farmer himself.

He said: "Not one farmer in a hundred realizes or understands the economic conditions of the country or of the world, and the fact that they are affecting intensely his welfare and his business. Farming has not paid because the farmer has failed to take into account the economic adjustment that make up profit and loss in every industry."

Mr. Kelley showed how the oleomargarine industry is supplanting the dairy cow. "In 1913, there were only a few thousand pounds of oleomargarine manufactured; in thirteen months, the manufacture had increased to ten million pounds."

The power and value of advertising in the dairy industry were stressed particularly by Mr. Kelley. He said that dairymen had entirely neglected the tremendous possibilities for the sale of their products on a health basis, while every other business was selling its products on terms which belonged to dairy products.

In a brief report upon the activities of the G. L. F. Exchange, H. E. Babcock, general manager, asked the voluntary business of the dairymen. "Volume voluntarily contributed saves," he declared. The convention later adopted a resolution recommending that dairymen buy their feed of the G. L. F.

Near the close of the meeting a resolutions committee of twenty-four, consisting of a representative from each of the twenty-four league districts made their report, all of which was adopted by the convention. This report follows:

Report of the Resolutions Committee

Every resolution presented to the committee was acted upon by the committee. The committee felt that s

(*Continued on page* 547)

Farmers in Big Business

REPORTS of the officers at the annual meeting of the Dairymen's League Cooperative Association at Utica, N. Y., on June 21, show the following startling figures as to the vast amount of business which the Association did during the fiscal year ending March 31, 1923:

1. Total value of gross sales of fluid milk sold the dealers $59,702,495.81
2. Total value of milk handled by the association's own plants 22,428,406.36
3. Total value of all milk sold by association ... 82,130,902.17

This sum is more than $20,000,000 greater than the total amount of business which the association did during the preceding year.

4. The total pooled milk handled by the association either in its own plants or sold to dealers amounts to ..... 3,359,273,358 lbs.
   Of this amount, the association handled in its own plants ..... 793,040,638 lbs.

   The association has doubled the amount of milk handled in its own plants.
5. The average net returns to producers was at the rate of $1.83 per hundred pounds of 3 per cent milk at the 201-210 mile freight zone. This includes $0.1376 per hundred pounds in Certificates of Indebtedness.
   The total expenses of the association, including depreciation and advertising, amounts to an average of $0.0695 per hundred pounds.
6. The Secretary's report showed that on March 31, 1923, there were 64,251 signers of the cooperative contract in 950 local associations. Of this number, slightly less than 45,000 were actually in the pool.

A business of this size conducted by farmers would have been beyond the wildest dreams of any farmer even ten years ago, but it is an indication that farmers are learning, as other business learned long before them, that both organization and concentration in large units are necessary for modern business success.—The Editors.

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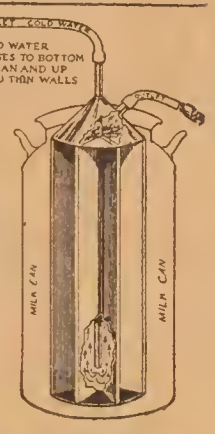

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Hay, Pastures, and the Condition of Cows

Also Some Pointers on Advertising and Selling Pure-Bred Cattle

By H. E. BABCOCK

DURING the past week my work has taken me by automobile from southern St. Lawrence County through Syracuse, Ithaca, Elmira, Harrisburg, Pa., and on down to Baltimore. As I drove I tried to observe as accurately as possible the condition of pastures and meadows.

It does not seem to me that I remember ever having seen either in as poor condition as they are north of Harrisburg. Below Harrisburg and on down into Baltimore it was harder for me to judge because it was my first trip over the territory. In the North Country, however—referring to the great dairy section lying north of Syracuse and along the St Lawrence River—pastures were very short and meadows seemed to have suffered from being continually frozen back. On the whole it seems to me that conditions in this great dairy section are such that milk production is bound to be lower than usual. I should think this would affect the price of milk, so that late summer and fall prices would be pretty good. Please understand that the above observation is simply my own unskilled analysis of what I saw.

The Dam—See "Selling Pure Breds"

I should say that at least 80 per cent of the cows I saw were in poor flesh. Normally with lush pasture, these cows would fatten up; on poor pasture they will gain only slightly and dry up rapidly. It has been my experience that cows that go out to grass thin particularly where they have poor pasture, are very unprofitable animals.

The only remedy for the combination of thin cows and poor pasture seems to be liberal grain feeding. From what I saw I should say that summer feeding of grain will pay, grain of good quality, not the cheap by-product feeds which so many dairymen use—if they use anything—during the summer months.

Practical Experience With a Thin Herd

On our own farms we are now getting some first-hand experience with thin, undernourished animals. We have just brought on one of the farms thirty pure-bred Guernseys, which are about the thinnest animals I have ever seen. In fact they were so thin that the boys refused to drive them through town until after dark. They have been turned into pasture in which the white clover and bluegrass is up to their knees. How such feed must surprise them!

The first reaction has been a marked increase in milk flow. These cows, it seems to us, are now milking way beyond their normal capacity; some of them, which are so thin they weigh only about 800 pounds are milking 40 pounds a day on two milkings. It will be interesting to see whether we can maintain satisfactory milk flow with these cows and at the same time grow them into the size and condition which our experience has proven essential to good results.

If the editor will permit me, I am going to print a snapshot soon of one of these animals, showing her in her present condition and then from time to time I will relate the results we obtain.

We ourselves are divided as to whether the herd, thin and stunted as it now is, can ever be developed into a really profitable bunch of cows, despite the very evident signs of production which most of the cows have. Personally I think we can make some real cows out of them, but I believe it will take two years to do it, and I doubt if they will any more than pay their way after this first flush of production is over.

Selling Pure Breds

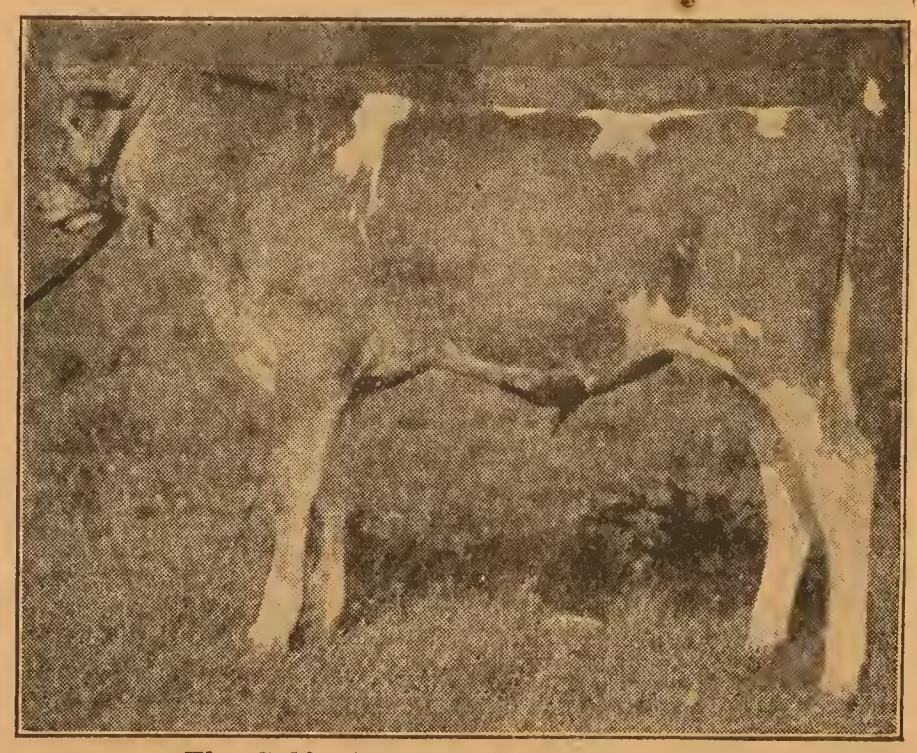
For the first time we are in a position to offer pure-bred Guernsey bull calves from cows with official records.

The Sire—See "Selling Pure Breds"

This brings us face to face with the advertising problem, and with the further task of answering inquiries resulting from advertisements.

After studying the advertisements which reach us and the answers to letters of inquiry which we have received, we have decided as a trial to rely very largely on pictures, pedigrees, and production records, both in our advertising and our answers to inquiries.

We have photographed the sire of our calves, the dams, and the calves themselves. These pictures we have grouped so as to show the sire, the dam, and the resultant calf. The illustrations on this page show the grouping. Such a group of pictures, showing the entire family, together with the pedigree of the calf and the official records of the cows in the pedigree is just what we would like to receive from an advertiser if we were inquiring about a bull. Whether it will prove what is wanted by the men who inquire of us, and will result in sales, is yet to be proven. We pass the suggestion on for what it is worth.


The Calf—See "Selling Pure Breds"

M. C. BURRITT AND DR. CHANDLER TO LEAVE NEW YORK STATE COLLEGE

At their meeting on June 18, the Trustees of Cornell University received the resignations of Dr. W. H. Chandler, Professor of Pomology and Vice-Director of Research in the New York State College of Agriculture, who leaves on June 30, to accept appointment as Research Professor of Pomology at the University of California; and of M. C. Burritt, Vice-Director of Extension, whose resignation will be effective December 31. Director Burritt leaves to take up the management of his excellent fruit farm at Hilton, Monroe County.

Dr. Chandler came to the New York State College of Agriculture from the University of Missouri in 1913, as a Research Professor of Pomology. He was advanced to the head of the Department of Pomology in 1915, when C. S. Wilson, the former head, became State Commissioner of Agriculture. When the Legislature created the position of Vice-Director of Research in 1920, Dr. Chandler was elected to this position.

Vice-Director Burritt was graduated from Cornell, in 1908. He was elected to the staff of the College in 1914, giving up the editorship of the "New York Tribune Farmer" for the College position. He was State Leader of County Agricultural Agents from 1914 to 1916. He has held his present position since 1917, being the first person to hold a vice-directorship at the College.

In announcing their resignations to-day, Dean A. R. Mann stated "The resignations of Vice-Directors Chandler and Burritt take from the State College two men of great ability and merit, who are held in high esteem and confidence by their associates.

"Dr. Chandler is recognized as one of the leading pomologists in America, and his scientific contributions have been not only highly beneficial to the fruit-growing industry of New York, but also of great value to scientists working elsewhere in this field. He leaves Cornell because of the superior

(*Continued on page* 540)

Buckwheat The Stand-by

A Crop That Will Help Out When Others Fail to Catch

"Buckwheat cakes and Injun batter
Make you fat and a little fatter"—

IT has been said of buckwheat that it has had a large part in helping to ruin the poor hill lands of the East because it is easy to get a fair crop of this grain on acid soil, with comparatively little labor. Buckwheat has been accused of being the shiftless farmers' chief crop, and because of such farmers' dependence upon this crop, they have often been called "buckwheaters".

Notwithstanding this, most good farmers in the Northern and Eastern States have a sneaking liking for buckwheat. It is an old stand-by. Since the earliest times when the cut worms and the crows got the corn, it was still possible to save the day by plowing it up and sowing buckwheat. If the potatoes failed to come up or if the rush of work or bad weather made it impossible to get in the early spring crop, there was still a chance of getting something from the land by falling back on buckwheat.

The name buckwheat seems to be a corruption of the German buchweisen meaning beech wheat, which was given to the plant because the shape of the seeds is similar to that of the beechnut, while their food constituents are similar to those of wheat grains. Botanically buckwheat is not a cereal, but, since its seeds serve the same purposes as the cereal grains, it is usually classed in market reports among the cereals. The family to which buckwheat belongs includes several well-known troublesome weeds, such as sorrel, dock, smartweed, knotweed, and bindweed.

Buckwheat does run down the land if planted too frequently without any rotation and little fertilizer, but the crop is not to blame for its misuse by man; and farmers know that it is often a life-saver because it can bring in a little much needed cash, becoming a real "mortgage-lifter" at times, if there is any such animal. It is valuable also as a soil renovator, a weed destroyer, a green manure crop and as a source of honey for bees. The straw also has a little feed and fertilizer value.

About the time chestnuts bloom in the North and in the East is the time to sow buckwheat. This is usually the last few days of June and during the first week of July. Many a farm boy has had a perfectly good holiday spoiled on the Fourth by having to drag land for buckwheat.

It requires a shorter season than any other grain crop but is mighty particular as to its weather during that season. A moist and cool climate is necessary and yet it is very sensitive to cold, being easily killed by frost. The seed will germinate in a dry seed bed and it will stand plenty of heat until it begins to bloom. Then the hot sun, and hot, dry winds, particularly from the East, will blast the flowers.

A Typical Filler Crop

The crop does best on light, well drained soil, but it will thrive on a wide variety of soils, being more particular as to weather conditions than to soil. If the ground is too rich or if barnyard manure is applied too heavily, the crop will lodge.

However, buckwheat needs some fertilization and most farmers find that it pays to apply a little commercial fertilizer, particularly acid phosphate. Of late, the high cost of fertilizer has discouraged its use some with buckwheat, but if the returns from the crop will not justify at least a small application of fertilizer, then it is doubtful if it is worth while to waste time and money on raising the crop at all.

There are three varieties of buckwheat grown in America—Common Gray, Silver Hull and Japanese. One of the Cornell reading courses says: "Seed of Silver Hull is slightly smaller and the color is lighter than that of Common Gray. It also has a glossy silver appearance. The Japanese is larger and somewhat darker than the Gray. The Japanese variety is somewhat thriftier than the others. The fresh stem has a green color and the flower seems not to be so subject to blasting from hot sunshine as the others. On this account, it is recommended in some localities to sow the Silver Hull and Japanese varieties mixed, it being said that the later and hardier will shade and protect the other from hot sunshine".

New York and Pennsylvania produce more than one-half of the total crop raised in the United States. This country is the third largest buckwheat producing country in the world, being surpassed by Russia with over fifty-five million bushels and by France with twenty-one million bushels. The United States produces approximately sixteen and a half million bushels. These are pre-war figures. The average yield of buckwheat per acre in the United States is about 18 bushels per acre.

Compared with other grains, buckwheat is not a large factor in this country. A bulletin published by the United States Department of Agriculture says that for each bushel of buckwheat there are produced about two hundred bushels of corn, fifty bushels of wheat, eighty bushels of oats, twelve bushels of barley and four bushels of rye. Nevertheless, buckwheat has an important place in American agriculture.

Until comparatively recently, a considerable part of the buckwheat crop was used as a grain feed for animals. It is a most excellent feed for poultry, and buckwheat middlings, on account of its large percentage of protein and fats, is in great demand as a feed for dairy cows.

Goes into "Flapjacks"

In years past only a small amount of buckwheat was manufactured into flour, and most of this was consumed in the form of pancakes by farm folks. Lately, however, city people have learned to like buckwheat cakes with the result that the larger part of the crop is now ground for flour to meet the increasing demand in the cities.

The grain is harvested with an old-fashioned hand-cradle, a drop reaper, or with a self-binder. Due perhaps to the fact that buckwheat is often grown on poor and hilly land and by farmers who are unable to afford better equipment, there is still a surprisingly large acreage cut by the hand-cradle. The good cradles and the good cradlers, however, passed with the older generation, so that cutting and binding buckwheat on many farms to-day by hand is a much dreaded job.

However, if it is cut in September just before the first hard frost and set up in stooks, buckwheat makes a beautiful crop, particularly significant of the harvest time in the North and East. The highly colored straw and buckwheat stubble, dotting the fields of the hills and valleys as far as you can see in the early autumn, gives one a comfortable feeling that there will be plenty of good buckwheat pancakes with maple syrup and sausage to eat later, when those same fields are covered with snow.

Buckwheat Facts

VARIETIES—Common Gray, Japanese, Silver Hull.
When to Sow—Around July 1.
Rate of Seeding—3 to 5 pecks per acre.
Soil Requirement—The range is wide, from poor acid soil to light, well drained soil. Buckwheat lodges on very rich soil.
Fertilizers—Much manure causes buckwheat to lodge. A hundred pounds or so of phosphate per acre is the practice of some growers.
Yield—The yield varies with the soil, variety and management from 14 to 26 bushels per acre, averaging about 20 bushels.
Price—Last year buckwheat sold for $1.50 per hundred.

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One Thousand Dollars ($1,000.00)
Either Hand and Sight of One Eye,
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News From Among New York Farmers

Apple Growers Organize For Fruit Show — May Pool Price Announced

REPRESENTATIVES of fruit growers' associations and horticultural societies of the Eastern States, met in New York yesterday and completed a permanent organization for the big Apple Exposition and Fruit Show to be held in Grand Central Palace, New York City, next fall. New York State, Massachusetts, Connecticut, Vermont, New Hampshire, Maryland, North Carolina and Pennsylvania have already arranged to participate in a huge campaign to advertise Eastern apples and other fruit. Governor Smith just recently signed a bill passed by the last Legislature appropriating $10,000 to assist the New York fruit growers in the educational features of the proposed Exposition.

The reports of the committees of representatives of agricultural departments, colleges of agriculture and fruit growers from other States were that in all the States mentioned, the growers were enthusiastic over the plan for bringing all the Eastern apple-growing States together in one big commercial exposition. It will not be a fancy fruit show of prize plates of apples, but a practical exhibit of commercial packages, which will show the city consumer and the city buyer what Eastern orchards have to offer.

The direction of the Exposition was placed by the delegates in the hands of a committee with the following permanent officers: Thomas E. Cross, Lagrangeville, N. Y., Chairman; A. W. Lombard, Massachusetts State Department of Agriculture, Vice Chairman; H. C. C. Miles, Connecticut Pomological Society, Secretary; H. A. Albyn, Bennington, Vt., Treasurer. In addition to these there are chairmen for each of the following States: New Hampshire, C. H. Barker; Vermont, C. L. Witherell; Massachusetts, Leslie R. Smith; Connecticut, C. L. Gold; New York, Charles G. Porter; Maryland, I. S. Rossell; North Carolina, C. O. Matthews.

Representatives of the following organizations, in addition to those already mentioned, were at the meeting: Western New York Fruit Growers' Cooperative Packing Association, Hudson Valley Fruit Growers' Cooperative Association, Clintondale, New York; Fruit Growers' Association, New York State Horticultural Society, the New York State Department of Farms and Markets, The New York Agricultural Experiment Station, Berks County Fruit Association of Reading, Pa.; and The New Jersey Horticultural Society.

The headquarters of the Fruit Show have been established at Room 1102, Grand Central Palace, New York.—H. H. JONES.

MAY POOL PRICE 52 CENTS BETTER THAN IN 1922

According to an announcement made by the Dairymen's League Cooperative Association to-day, the net pool price which its members will receive for May milk is $1.82. This is the base pool price for one hundred pounds of milk testing 3 per cent butter fat at the 201-210 mile zone. The price which individual poolers will receive in each case will vary according to the butter fat and freight differentials.

This price is fifty-two cents higher than the pool price for May a year ago. One of the principal reasons for this, according to officials of the association, is the fact, that during recent months a larger proportion of the milk of the association has been marketed in the three higher classifications, that is, as fluid milk, sweet cream, condensed and evaporated milk and ice cream. The league is now receiving the full market prices for its manufactured products as a result of the extensive advertising and sales campaign carried on for the past three months.

During May, 90 per cent of the milk which went through the league plants was sold in Classes 1, 2 and 3. It is interesting to compare the figures for May a year ago when the league plants marketed in these higher classifications only 57 per cent of the total quantity which they handled during the month.

The association announced the total gross sales for the month of April $6,385,769.10 of which it received for fluid milk sold to dealers $4,666,680.97. The sales from plants operated by the association amounted to $1,719,088.13.

BOARD OF CONTROL OF GENEVA STATION HOLDS LAST MEETING

ALVAH H. PULVER

The final meeting of the board of control of the New York State Experiment Station, before the transference of the management to the State College of Agriculture at Ithaca, was held at Geneva on June 12. The board took favorable action on appointments to several new positions created by the last Legislature, filling the vacancies on the staff. An appropriation was made by the Legislature for special investigations with fruit in the Hudson River Valley and three new positions were created to make possible the carrying on of this work.

E. V. Shear, Cornell graduate, has been appointed associate in research in plant pathology and will begin work on disease problems in the Hudson River territory at an early date. Dr. F. H. Lathrop, formerly connected with the station, but more recently engaged in research work on the insecticidal properties of sulphur for the Crop Protection Institute, has been appointed associate in research in entomology and will soon undertake investigations of insect problems peculiar to the Hudson River Valley.

COUNTY NOTES FROM AMONG NEW YORK FARMERS

Steuben Co.—Dogs still present a menace to sheep growers through this section. Early this month Griff Jack of Canisteo, lost 23 head which was the third disastrous raid made by dogs within a very short time. In addition to the animals destroyed, Mr. Jack has several animals on his hands that are seriously injured. The loss to the county will amount approximately to $1,500, although that sum does not cover Mr. Jack's loss, for practically the entire herd was destroyed.

In Western New York

Wyoming Co.—The officers and directors of the Wyoming County Agricultural Society are planning to give tickets for the first day of the fair to each teacher and child of school age in the county. This day will be known as school day. The association has made especial effort to interest boys and girls in junior project work in making the exhibit this year one of the best ever held. At the Perry Fair, which is also in Wyoming County, all children of 12 years of age will be admitted free of charge. The annual cattle show and field day of the Pavilion and Wyoming Better Cattle Club, will be held on Quinlan Field at Pavilion, on Saturday, July 14. A judging contest will be held for the boys of the different school districts. Crops are doing well though they were a little late in getting started. Fruit seems to have set fairly well. Late cherries and apples are best, but there will not be probably, as large a crop as last year.—MRS. L. F. FENNER.

Chautauqua Co.—This section has been suffering from a serious drouth. We have only had one good rain since May 8. The nights have been very cool and low places have suffered from frost. Corn looks worse this season than it has in years. All crops are suffering from want of rain. If we get a wet spell soon we will have a fair hay crop, otherwise it will be a failure. This season the condensery is paying better prices than cheese factories. The non-poolers are a little in the lead. Farmers are not feeding cattle grain but soon will be forced to as pastures are getting short.—A. J. NORMAN.

Genesee Co.—The weather during the middle of June was a great deal better than during the first week when it was so rainy that it was impossible for farmers to work in the fields. Farmers are particularly hard hit this year with the scarcity of help and the general backward season. Wheat is selling for $1.30 a bushel, potatoes 80 cents, beans $6, hay $9 a ton, live poultry 25 cents a pound, dressed 30 cents, live calves 9 cents, dressed 12 cents, dairy butter 36 cents, creamery butter 48 cents. Eggs are 26 cents. Several farms are lying idle this summer in this section. No one wants to work them for men can get larger wages in the factories.—J. C.

In the Northern Country

St. Lawrence Co.—The weather has been cold and wet. We have had frosts on several different nights. Considerable land is under water. The outlook is quite poor for any kind of crops in this section. Hay only looks fair. Milk is bringing a fair price. Eggs are terribly low, only 27 cents.—H. S. H.

Essex Co.—Old potatoes become very scarce this spring and command as high as $2 per bushel in this section. This spring is a late one but the weather has been favorable for getting in the crops. Meadows are looking fairly good. A good rain on June 7 and 8 helped all the crops. Veal 9 cents, eggs 20 to 25 cents. Not much call for cows. Hired help very scarce. —M. E. BURDICK.

In the Hudson Valley

Saratoga Co.—Crops are about all in. The season is late and notwithstanding recent rains, the ground seems quite dry. The fruit outlook is fairly good. Worms have done much damage to the apple trees, especially in the younger orchards. Orchadists are hard at work repairing the damage done to young fruit trees last winter by the mites. About 50 per cent of the young trees were girdled. Farmers have planted only about 50 per cent average crop, putting in only what they can care for without additional help. Cows are doing well. Butter brings 45 cents a pound wholesale, spring pigs $5 a pair, veal 9 to 10 cents. Eggs 28 cents.—E. S. ROGERS.

Sullivan Co.—The season in this section is about three weeks behind last year. It has been unusually cold. Tent caterpillars are very numerous. Many farmers are not satisfied with the milk situation. Some have sold their cows. It is impossible to get help. No building being done. This is a great section for summer boarders, but very few cottages have been rented for the season to date. Dairy butter 50 cents, eggs 25 cents. Old potatoes $1.50 per bushel.—MRS. C. P. MILK.

M. C. Burritt and Dr. Chandler Leave College

(*Continued from page* 538)

natural advantages which the soil and climate of California afford for the prosecution of his researches. He expects to devote his entire time to pomological research.

"To Vice-Director Burritt must go much of the credit for the rapid development and sound organization of the agricultural extension service as we now have it. He came to the College when the idea of the farm bureau as a resident educational service for farmers was just beginning to take shape, and his influence has been predominant in the development of this movement to its present high efficiency, including now the three-fold organization of county agricultural, home demonstration, and boys' and girls' club agents. Since 1917 he has been primarily responsible for the direction of all phases of the extension service, which has become one of the largest and most immediately useful functions of the College. For many years Professor Burritt has desired to return to the home farm, the ownership of which he has retained. After more than a decade of excellent public service his anticipations are now to be fulfilled. A man of vigor and decision, actively and intensely devoted to every sound movement which looks toward the improvement of the status of farmers, he will inevitably continue to be largely useful in many of the farmers' organizations."

Jersey Fruit Growers Open Newark Office

Pennsylvania Farm News—Long News in Short Paragraphs

TO quicken the delivery of peaches and so reduce losses to consumers in northern New Jersey this summer, the Jersey Fruit Growers' Cooperative Association, representing the organized growers of the central and southwestern New Jersey peach belt, will open an office on July 1 in Newark, N. J., in charge of Kenneth Hankinson, on leave of absence from the New Jersey State Bureau of Markets. Negotiations are under way for the establishment of offices at other large consuming points in northern New Jersey, eastern Pennsylvania and the metropolitan area of New York City as the season advances. Ahe move is in line with the special policy of cooperating growers in eliminating waste in the marketing of this highly perishable crop, by direct grower representation which can prevent delays at important eastern cities.

A fleet of high-powered motor trucks as well as special express freight service will be employed by the association for delivery of its peaches within 100 miles of orchard packing houses, according to a separate marketing policy on nearby and distant shipments. Buyers within the motor truck or short haul will receive the peaches in a fresher and better shape than is possible under former routing methods without representation on destination markets to quicken deliveries. The Jersey Fruit Growers have discontinued the "Blue Jay" brand name, which it used last year in distributing its peaches to the trade. At a recent Executive Committee meeting of the association, "Jersey Jerry" was officially accepted by that body as a brand name for its products this year. The Fancy and No. 1 N. J. U. S. standard peach grades will bear labels to that effect, while the No. 2 grade will be known as "domestic."

New Jersey County Notes

Dry weather of late May and early June caused serious delays in maturity of pastures, grain and berry crops in the northern part of the State, although relieved somewhat by light rains in mid-June. In Morris County the lack of rain affected grass and grain more than usual due to the cold spring, which delayed development of the crops during the early stages of their growth. The condition of oats, wheat and rye on higher fields suffered more than crops on lower levels.

Reports from Warren County indicate that a similar condition exists and that upland crops suffered more than those in the valleys. Market gardeners report delayed maturity of strawberries and early vegetables, while smaller gardeners have been benefited somewhat by the slow maturity, in that they were able to pack and market the majority of their crops despite the general lack of help.

The situation in Sussex County was not reported as serious although rain was badly needed in many sections.

Columbus Grange of Burlington County, N. J., recently voted to hold a fair again this season. This is one of the active Granges in the State, with fraternal and social events held regularly throughout the year, including the initiation of classes for granges even outside of the State. William R. Shinn was elected Lecturer of the Grange and Edward Engle was made Director.

PENNSYLVANIA DAIRYMEN FEEL MORE OPTIMISTIC

The Interstate Milk Producers' Association with 20,000 members along the Philadelphia milk shed, considered the advisability of cooperatively buying dairy feeds for its members at its recent annual meeting. No action was taken in this regard, however, it being felt that the association should make use of farmers' cooperative purchasing agencies already in existence and operating successfully in the State.

Reports from country shipping points indicate that the recent increase of three-fourths of a cent per quart in the price of milk as secured by the association for the late spring and early summer months, has increased the general optimism of members concerning the association's activities. The organization has also increased the number of its testers to speed up the testing service and to provide for the steady growth of the organization, which has brought in many new members in recent months.

Pennsylvania Fruit Notes

The Berks County Fruit Growers' Association recently represented at the conference in New York City for an eastern apple show, have voted to take space in the Eastern Apple Exposition and Fruit Show to be held in New York City early next November. The Pennsylvania Horticultural Society decided not to take part in the show officially, although it is reported that some of the larger grower members may exhibit as individuals.

Early June estimates on the Pennsylvania apple crop place the production this year at 11,645,797 bushels. The estimated yield of peaches will be 1,699,337 bushels, and of pears 634,351. The condition of apples, peaches and pears was reported at 94 per cent of normal yield; plums and cherries indicate 94 per cent of a normal crop.

Other Keystone Farm Notes

Cooperative buying so that individual farmers may make a saving incident to purchasing in a large way, has been developed within the year at various places, notably in Lancaster County, which, through its Farm Bureau, has considerably extended the cooperative purchasing program adopted several years ago. Fertilizer, potatoes and spray materials constitute the chief products cooperatively ordered this year. Twelve cars of certified seed were secured for farmers of the county, from Maine, Vermont and Michigan chiefly. Over 7,400 pounds of arsenate of lead, 3,600 pounds of copper sulphate, 1,500 pounds of bordeau and 100 pounds of nicotine sulphate were purchased for spray materials. Largest purchases were of fertilizer, consisting of 46 cars of various materials to meet county needs. Estimates placed the cooperative purchases at a total value of $100,000.

The loss from forest fires in the State has been enormous this season and the dry weather of late May and very early June extended the period of fire danger later than in normal seasons. The Pennsylvania Forestry Department from date recently compiled reports over 82,000 acres burned to date. The cost of controlling 1,280 forest fires reported was $31,240. Carelessness is given as one of the chief causes of forest fire. Pennsylvania officials urge full legal action against those to whom the responsibility can be traced.

The Bedford Jersey Bull Association was organized in Bedford County, Pa., with six bulls, now ordered, to start the new organization at an early date. Bedford County, which is one of the foremost Jersey sections of the State also has an organization known as the Everett Jersey Bull Association, now owing five animals and shortly to complete arrangements for the purchase of others.

Dauphin Grange Growing

On Saturday, June 16 a delegation from Success Grange of Dauphin, Pa., headed by Master H. L. Bicker, attended the annual picnic of the Juniata Pomona Grange held on the fair grounds at Port Royal, Pa. Success Grange started with twenty members only a few years ago. It now has well over 100 members. Among the most recent additions is Robert P. Bliss of the Pennsylvania Free Library Commission, which is doing excellent work in placing good books in the hands of the rural population.—C. H. FOREST.

LONG NEWS IN SHORT PARAGRAPHS

Contrary to the usual belief, exports of the leading farm crops have been much greater since the war than before, and larger even than they were during the war. The exports of the eight principal food crops, corn, wheat, oats, barley, rye, buckwheat, rice and potatoes, measured in bushels, were greater by 18 per cent for 1920-1922, inclusive, than they were during the war years, 1915-1919, inclusive. Exports of canned milk, however, are less than they were during the war. Farmers' market troubles are evidently not in the export situation, but rather in the larger production. In the case of the eight crops named, the average annual production in bushels was 16 per cent greater during the years 1920-22, inclusive, than during the pre-war years, and 2 per cent greater than during the war years.

* * *

Mount Etna, arising nearly eleven thousand feet above the sea, on the eastern coast of Sicily, the largest active volcano in Europe, has broken forth in the most terrible volcanic eruptions in a generation. Great seas of molten lava miles wide flow slowly but irresistably down the mountainside and into fertile farm lands, destroying the green fields, orange groves and vineyards and wiping out old villages. The air in every direction for miles is filled with dust and sulphurous gases, darkening the sun. Flames from the eruptions can be seen for more than eighty miles.

The roads are gorged with pathetic refugees who have left their homes and their beautiful little farms to escape the great scourge.

* * *

Connecticut has a law against daylight savings with teeth in it. "No person, firm or corporation, organization or association, shall wilfully display in or on any public building or on any street, avenue or public highway any time measuring instrument or device which is calculated or intended to furnish time to the general public so as to intentionally indicate any other than standard time. Any person or organization violating any part of this act shall be fined no more than one hundred dollars." A similar law exists in New Hampshire with a five hundred dollar fine for violation. Evidently those who fool with the time in these States will get fooled.

* * *

My skin was wan and buttery, my ears were full of buzz, my heart was weak and muttery, my tongue was full of fuzz. Depression weighed upon me, but now I'm feeling fine. My blessings, then, upon thee, oh herds of lowing kine, which give the food sustaining that keeps me thisaway. I'm through with all complaining. I drink a quart a day!—SHORTS AND MIDDLINGS.

* * *

Germany now has 4,652,125 farmers who are members of cooperative organizations. There has been a steady growth among German farmers of the cooperative idea since 1895.

* * *

Danish farmers have, temporarily at least, lost their British butter market. Large importations in England of New Zealand butter caused a sudden sharp drop of butter prices in the British Isles.

* * *

The production of maple products is falling off rapidly, chiefly because of the destruction of maple trees by the insect known as the maple case-bearer. Dr. Glenn W. Herrick of Cornell says that there is a reasonable possibility of controlling this insect by thoroughly dusting the infested grove with arsenate of lead, by means of an aeroplane. If you own a maple grove, you may be interested in reading the bulletin which you can get by sending a postal card to the State College of Agriculture, at Ithaca asking for Bulletin 417.

* * *

Charles W. Pugsley, Assistant Secretary of the United States Department of Agriculture, has resigned effective October 1, to become president of the South Dakota College of Agriculture.

* * *

The forty-eighth annual meeting of the Ayrshire Breeders' Association was held at Saratoga Springs, New York June 13 with the largest attendance in the history of the association. Consignment sale on the preceding day of forty-four red and whites brought $12,565.

If it is farm news, you will see it in the American Agriculturist.

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Visit Canada this summer—see for yourself the opportunities which Canada offers to both labor and capital—rich, fertile, virgin prairie land, near railways and towns, at $15 to $20 an acre—long terms if desired. Wheat crops last year the biggest in history; dairying and hogs pay well; mixed farming rapidly increasing.

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If you wish to look over the country with a view to taking up land get an order from the nearest Canadian Government Agent for special rates on Canadian railroads. Make this your summer outing—Canada welcomes tourists—no passports required—have a great trip and see with your own eyes the opportunities that await you.

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100 Single rooms	2.50 per day
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Single rooms, with bath,	4 per day and upward
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FOXES WANTED — Young or old ones. ROSS BROWN, McFall, Ala.

The Rural Health Problem

(*Continued from page* 535)

it means deprivation of the company of his children, great expense and anxiety.

Lectures for adults, concerts, theatrical and operatic presentations are rare, while the city physician may pick among many to suit his taste or that of his family. It is true that the movies, and recently the radio, have brought some relief, but it is still pitifully inadequate.

Social intercourse is limited and the opportunities of improving or polishing manners and poise are few. Besides, social relations are apt to be cramped, intolerant and gossipy, when everybody knows everybody else's business and can "listen in" on the phone. Many a country physician has had to throw up his practice owing to idle gossip.

No Opportunity to Continue Studies

Owing to the expenditure of practically all his time attending to a few patients, the country doctor has not enough leisure left to keep abreast of medical progress. Not only has he no time for general literature; but even the essential articles in the professional journals remain unread. He rapidly becomes a "back number."

The peculiarities of country practice, prevent him taking any post-graduate courses and he sinks in the depressing rut of daily routine. Many rural physicians do not practice modern medicine, but that of thirty or forty years ago. As there are no chances of professional advancement or specialization, his worth as a scientific medical man decreases, instead of increasing with the years. Neither are there chances for him of getting those positions of honor or emoluments which fall to the lot of his city colleague.

While the urban physician has regular office hours and may leave his practice in charge of a colleague during vacation, the man who practices in the country must always be on duty. As his patients often come from great distances to see him, he must be ready to attend them at any time. We must all "let up" occasionally from the daily grind and the failure to do so exacts a heavy toll from our nervous energy.

The country physician suffers from a sense of inferiority, which has its effect upon his *morale*, although he may not show it or even cheerfully deny or disguise it. The lack of diagnostic facilities such as the X-ray and other laboratory tests, discourages him from making any definite diagnoses and he falls into the pernicious habit of leaving the cure to nature with results that are often disastrous.

All the reasons enumerated above which deter physicians from settling in rural districts may be simplified to one common denominator, namely: the lack of financial returns. Or, as the editor of the American Agriculturist so aptly and tersely puts it: "It goes back to a question of dollars and cents." If the farmers could get better returns for their crops, they would be able to build better roads, maintain small rural hospitals and laboratories, employ a nurse and technician, make sanitary improvements and even guarantee the doctor a certain yearly income, sufficient for his wants and those of his family.

However, as matters stand now and until the farmers have learned to work cooperatively, no immediate solution of the rural health problem could be expected without outright or at least partial aid from the State. Legislation is urgently needed to remedy a state of affairs which is fast becoming dangerous to the health and life of the rural population. Every year there are thousands of lives lost and hundreds of thousands of disabilities which could have been prevented by a more adequate system of rural health organization.

At the next session of the legislature, it is imperative that a bill be passed that every district in the State receive a subsidy covering partly or entirely, as the case may be, the erection of a small hospital and laboratory, a nurse, a laboratory technician and a physician. The nurse could do the necessary home visiting and the physician could be appointed school inspector and health officer. The certification of the districts and the details of administration could be left to the State department of health, acting in conjunction with the local authorities and the bill should contain sufficient safeguards to prevent its provisions from becoming a "pork barrel."

It is, therefore, incumbent upon every farmer to write to his assemblyman and senator asking them to support any bill subsidizing health centers in the rural districts. We are fortunate in having a governor whose interest in the matter will go far towards solving the rural health problem in the State of New York.

The Aftermath of the War

(*Continued from page* 534)

controlling power to attain that satisfaction both as to reparation and security that was assured her by all the powers that made the Treaty of Versailles, even if it takes another war to accomplish it. It is now, while their army is intact and directed by the greatest existing General Staff, that France will insist upon a conclusion. They will not delay it for years, during which they would have to bear the tremendous expense of maintaining their army,—while Germany, free from that incubus, would be restoring her mercantile marine and re-establishing her manufacturing interests and international commerce.

We, here, might as well realize that our failure to ratify the Treaty of Versailles or to enter into a separate treaty with France securing her against future aggressive attacks by Germany,—has prevented the establishment of Peace,—and that Europe is again in a pratical state of war, which at any moment may lead to further bloodshed and all the horrible incidents of war.

A. A. TO BROADCAST MARKET REPORTS

American Agriculturist is cooperating with the New York State Department of Farms and Markets and with the broadcasting station WEAF to broadcast the latest information on farm prices and conditions every Tuesday, Wednesday, Thursday and Friday, at 10:50 A.M., standard time. If you use this service it may save you a lot of money. If you do not have a radio, ask your neighbor who does have one to give you the service over the telephone.

Of the many papers I read, I like yours the best.—Lott Hall, Gouverneur, N. Y.

The Brown Mouse—*By Herbert Quick*

"ALL right," reiterated the colonel. "But why?"

Oh," said Jennie, "I want to see whether I can talk Jim out of some of his foolishness."

"You want to line him up, do you?" said the colonel. "Well, that's good politics, and incidentally, you may get some good ideas out of Jim."

"Rather unlikely," said Jennie.

"I don't know about that," said the colonel, smiling. "I begin to think that Jim's a Brown Mouse. I've told you about the Brown Mouse, haven't I?"

"Yes," said Jennie. "You've told me. But Professor Darbishire's brown mice were simply wild and incorrigible creatures."

"Justin Morgan was a Brown Mouse," said the colonel. "And he founded the greatest breed of horses in the world."

"You say that," said Jennie, "because you're a lover of the Morgan horse."

"Napoleon Bonaparte was a Brown Mouse," said the colonel. "So was George Washington, and so was Peter the Great. Whenever a Brown Mouse appears he changes things in a little way or a big way."

"For the better, always?" asked Jennie.

"No," said the colonel. "The Brown Mouse may throw back to slant-headed savagery. But Jim . . . . sometimes I think Jim is the kind of Mendelian segregation out of which we get Franklins and Edisons and their sort. You may get some good ideas out of Jim. Let us have them here for Christmas, by all means."

In due time Jennie's invitation reached Jim and his mother, like an explosive shell fired from a distance into their humble dwelling. Mrs. Irwin had long since regarded herself as quite outside society. To be sure, for something like half of this period, she had been of society if not in it. She had done the family washings, scrubbings and cleanings, had made the family clothes and been a woman of all work, passing from household to household, in an orbit determined by the exigencies of threshing, harvesting, illness and child-bearing. And when Jim, having absorbed everything which the Woodruff school could give him in the way of education, found his first job at "making a hand," Mrs. Irwin, at her son's urgent request, ceased going out to work for a while, until she could get back her strength. This she had never succeeded in doing, and for a dozen years or more had never entered one of the houses in which she had formerly served.

"I can't go, James," said she; "I can't possibly go."

"Oh, yes, you can! Why not?" said Jim. "Why not?"

"You know I don't go anywhere," urged Mrs. Irwin.

"That's no reason," said her son.

"I haven't a thing to wear," said Mrs. Irwin.

"Nothing to wear!"

I WONDER if any ordinary person can understand the shock with which Jim Irwin heard those words from his mother's lips. He was approaching thirty, and the association of the ideas of Mother and Costume was foreign to his mind. Other women had surfaces different from hers, to be sure—but his mother was not as other women. She was just Mother, always at work in the house or in the garden, always clothed in the grays, gray-blues, neutral stripes and checks which were cheap and common and easily made. Clothes! Jim had never given the thing a thought further than to wear out his Sunday best in the schoolroom, to wonder where the next suit of Sunday best was to come from, and to buy for his mother the cheap and common fabrics which she fashioned into garments.

"Why, mother," said he, "I think it would be pretty hard to explain to the Woodruffs that you stayed away because of clothes. They have seen you in the clothes you wear pretty often for the last thirty years!"

Was a woman ever quite without a costume?

Mrs. Irwin gazed at vacancy for a while, and went to the old bureau. From the bottom drawer she took an old, old black alpaca dress—a dress which Jim had never seen. She spread it out on her bed in the alcove off the combined kitchen, parlor and dining-room in which they lived, and smoothed out the wrinkles. It was almost whole, save for the places where her body, once so much fuller than now, had drawn the threads apart—under the arms, and at some of the seams—and she handled it as one deals with something very precious.

"I never thought I'd wear it again," said she, "but once. I've been saving it for my last dress. But I guess it won't hurt to wear it once for the benefit of the living."

Jim kissed his mother—a rare thing, save as the caress was called for by the established custom between them.

"Don't think of that, mother," said he, "for years and years yet!"

CHAPTER X

HOW JIM WAS LINED UP

THERE is no doubt that Jennie Woodruff was justified in thinking that they were a queer couple. To be sure, Jim's clothes were not especially noteworthy, being just shiny, and frayed at cuff and instep, and short of sleeve and leg, and ill-fitting and cheap. They betrayed poverty, and the inability of a New York sweatshop to anticipate the prodigality of Nature in the matter of length of leg and arm, and wealth of bones and joints which she had lavished upon Jim Irwin. But the Woodruff table had often enjoyed Jim's presence, and the standards prevailing there as to clothes were only those of plain people who eat with their hired men, buy their clothes at a county seat town, and live simply and sensibly on the fat of the land. Jim's queerness lay not so much in his clothes as in his personality.

On the other hand, Jennie could not help thinking that Mrs. Irwin's queerness was to be found almost solely in her clothes. The black alpaca looked undeniably respectable, especially when it was helped out by a curious old brooch. Jennie guessed it must have a story—a story in which the stooped, rusty, old lady looked like a character of the period just after the war. For the black alpaca dress looked more like a costume for a masquerade than a present-day garment, and Mrs. Irwin was so oppressed with knowledge that her dress didn't fit, and with the difficulty of behaving naturally—like a convict just discharged from prison after a ten years' term—that she took on a stiffness of deportment quite in keeping with the idea that she was a female Rip Van Winkle not yet quite awake. But Jennie had the keenness to see that if Mrs. Irwin could have had an up-to-date costume she would have become a rather ordinary and not bad-looking old lady. What Jennie failed to divine was that if Jim could have invested a hundred dollars in the services of tailors, haberdashers, barbers and other specialists in personal appearance, and could have blotted out his record as her father's field-hand, he would have seemed to her a distinguished-looking young man. Not handsome, of course, but the sort people look after—and follow.

"COME to dinner," said Mrs. Woodruff, who at this juncture had a hired girl, but was yoked to the oar nevertheless when it came to turkey and the other fixings of a Christmas dinner. "It's good enough, what there is of it, and there's enough of it such as it is—but the dressing in the turkey would be better for a little more sage!"

The bountiful meal piled mountain high for guest and hired help and family melted away. The colonel, in stiff starched shirt, black tie and frock coat, carved with much empressement, and Jim felt almost for the first time a sense of the value of manner.

"I had bigger turkeys," said Mrs. Woodruff to Mrs. Irwin, "but I thought it would be better to cook two turkey-hens instead of one great big gobbler with meat as tough as tripe and stuffed full of fat."

"One of the hens would 'a' been plenty," replied Mrs. Irwin. "How much did they weigh?"

"About fifteen pounds apiece," was the answer. "The gobbler would 'a' weighed thirty, I guess. He's pure Mammoth Bronze."

"I wish," said Jim, "that we could get a few breeding birds of the wild bronze turkeys from Mexico."

"Why?" asked the colonel.

"They're the original blood of the domestic bronze turkeys," said Jim, "and they're bigger and handsomer than the pure-bred bronzes, even. They're a better stock than the northern wild turkeys from which our common birds originated."

"Where do you learn all these things, Jim?" asked Mrs. Woodruff. "I declare, I often tell Woodruff that it's as good as a lecture to have Jim Irwin at table."

There came into Jim's eyes the gleam of the man devoted to a Cause—and the dinner tended to develop into a lecture. Jennie saw a little more plainly wherein his queerness lay.

"There's an education in any meal, if we would just use the things on the table as materials for study, and follow their trails back to their starting-points. This turkey takes us back to the chaparral of Mexico——"

"WHAT'S chaparral?" asked Jennie, as a diversion. "It's one of the words I have seen so often—but after all it's just a word, and nothing more."

"Ain't that the trouble with our education, Jim?" queried the colonel, cleverly steering Jim back into the track of his discourse.

"They are not even living words," answered Jim, "unless we have clothed them in flesh and blood. 'Chaparral' to Jennie is just the ghost of a word. Our civilization is full of inefficiency because we are satisfied to give our children these ghosts and shucks and husks of words, instead of the things themselves, that can be seen and hefted and handled and tested and heard."

Jennie looked Jim over carefully. His queerness was taking on a new phase—and she felt a sense of surprise such as one experiences when the conjurer causes a rose to grow into a tree before your very eyes. Jim's development was not so rapid, but Jennie's perception of it was.

"I think we lose so much time in school," Jim went on, "while the children are eating their dinners."

"Well, Jim," said Mrs. Woodruff, "everyone but you is down on the human level. The poor kids have to eat!"

"But think how much good education there is wrapped up in the school dinner—if we could only get it out."

Jennie grew grave. Here was this Brown Mouse actually introducing the subject of the school—and he ought to suspect that she was planning to line him up on this very thing—if he wasn't a perfect donkey as well as a dreamer. And he was calmly wading into the subject as if she were the ex-farm-hand country teacher, and he was the county superintendent-elect!

"Eating a dinner like this, mother," said the colonel gallantly, "is an education in itself; but just how 'larnin'' is wrapped up in the school lunch is a new one on me, Jim."

"Well," said Jim, "in the first place the children ought to cook their meals as a part of the school work. Prior to that they ought to buy the materials. And prior to that they ought to keep the accounts of the school kitchen. They'd like to do these things, and it would help prepare them for life on an intelligent plane, while they prepared the meals."

"Isn't that looking rather far ahead?" asked the county superintendent-elect.

"It's like a lot of other things we think far ahead," urged Jim. "The only reason why they're far off is because we think them so. It's a thought—and a thought is as near the moment we think it as it will ever be."

"I guess that's so—to a wild-eyed reformer," said the colonel. "But go on. Have some more dressing."

"Thanks, I believe I will," said Jim. "And a little more of the cranberry sauce. No more turkey, please."

"I'd like to see the school class that could prepare this dinner," said Mrs. Woodruff.

"Why," said Jim, "you'd be there showing them how! They'd get credits in their domestic-economy course for getting the school dinner—and they'd bring their mothers into it to help them stand at the head of their classes. And one detail of girls would cook one week, and another serve The setting of the table would come in as a study—flowers, linen and all that. And when we get a civilized teacher, table manners!"

"I'd take on that class," said the hired man, winking at Selma Carlson, the maid, from somewhere below the salt. "The way I make my knife feed my face would be a great help to the children."

"And when the food came on the table," Jim went on, with a smile at his former fellow-laborer, "just think of the things we could study while eating it. The discussion of a meal under proper guidance is much more educative than a lecture. This breast-bone, now," said he, referring to the remains on his plate. "That's physiology. The cranberry-sauce — that's botany, and commerce, and soil management—do you know, Colonel, that the cranberry must have an acid soil—which would kill alfalfa or clover?"

JIM IRWIN—"THE BROWN MOUSE"

THOUGH he smiles so cheerfully, things are looking badly for Jim Irwin, former farm hand and now school teacher. Jennie Woodruff, in order to "line him up"—that is, force him to give up his plans for a school based on practical life—has invited Jim and his mother to Christmas dinner. Her father, however, has a growing respect for Jim's theories and his ability to practice them.

"Read something of it," said the colonel, "but it didn't interest me much."

"And the difference between the types of fowl on the table—that's breeding. And the nutmeg, pepper and cocoanut—that's geography. And everything on the table runs back to geography, and comes to us linked to our lives by dollars and cents—and they're mathematics."

"We must have something more than dollars and cents in life," said Jennie. "We must have culture."

(*Continued on page* 544)

Summertime Is Salad Time, So Visit Your Garden

Mrs. E. B. Terbush Gives Recipes For All Sorts of Combinations and Dressings as Well

IT is no longer fashionable to have spring fever and take the old time remedy of molasses and sulphur. It is far better to get our sulphur and other minerals from lettuce, spinach, apples, carrots, celery, cabbage and other such foods. Just now, our system especially needs this diet of fresh foods to help cut down the protein diet which in this country is apt to be too high.

Salads are not a strictly modern dish as many may suppose. The first salad recorded is that made of hyssop of biblical fame. The broad leaves of the hyssop plant with their acid juice, not unlike our plantain, were bruised by stones and then served with an oil. Our salads of to-day follow this same principle although they are more complicated.

Every salad is composed of three parts—a garnish, which may be lettuce, watercress, celery tops, cucumbers, parsley, radishes—a body of meat, fish, vegetables, (alone or in combination), and dressing.

The Essentials of Salad Making

Fruits and vegetables for salads should always be in good condition, well cleaned and crisp. Place the vegetables in cold water till crisp, then drain on a towel and keep in a cool place till served. It is best to marinate all canned or cold vegetables before serving, which means to let them stand in French dressing in a cold place for an hour before making into a salad. Meats should be carefully cleaned of gristle, cut into cubes, and marinated like the vegetables. Onions may be cut very fine by chopping across each way many times and then slicing very thin.

Probably the two most popular dressings used are the French dressing and the mayonnaise, and these are the basis for many others. The French dressing is most commonly used for green salads and marinating, and the mayonnaise is popular on fruits and vegetables.

French Dressing

One-half teaspoon salt; ¼ teaspoon pepper; 2 tablespoons vinegar; 4 tablespoons oil. Shake well before using. A Parisian French dressing may be made by adding chopped onion, parsley, red and green peppers.

Uncooked Mayonnaise

Few grains paprika; ½ teaspoon salt; 1 teaspoon sugar; ½ teaspoon mustard; 2 egg yolks or 1 egg; 1 pint oil; 2 tablespoons lemon juice; 2 tablespoons vinegar. Mix seasonings and add yolks. Beat well, adding acid gradually and beating. Turn in oil slowly, beating constantly.

An extender will increase the amount and make less noticeable the taste of oil. For the extender, use ¼ cup vinegar; ¾ cup water; 1 teaspoon mustard; 1 tablespoon sugar; 2 tablespoons cornstarch; paprika. Add dry ingredients to liquid and cook till thick. Stir in dressing and chill.

For those who prefer a dressing without oil a simple boiled dressing may be made.

Olive oil, Wesson oil, or Mazola give very satisfactory results and the last two are generally popular because of their mild flavor and comparatively low cost. It has also been found that temperatures of intense heat or cold have no undesirable effect upon the thickening power of the oil. If the first lot does not seem to thicken, start over again with the egg, vinegar and oil, and when that begins to thicken add the other mixture and beat. If ordinary care is taken and the oil is in good condition, there should be very little "going back" of the dressing in the making. I have found that the use of the whole egg in the place of two yolks gives satisfactory results by increasing the amount of oil.

Following are a few appetizing salads including meat, vegetables and fruit. Unless otherwise given the recipe serves four persons.

Water Lily Salad

Cut the white of a hard-cooked egg from top down almost to the bottom, leaving in the shape of lily leaves. Remove yolk, put through sieve, mix with mayonnaise and place in center of white. Serve with mayonnaise at side. (Individual serving.)

Swiss Salad

One cup cold chicken diced; 1 cucumber diced; 1 cup peas; 1 cup chopped nut meats.

Marinate with French dressing and serve with mayonnaise.

Tomato Sandwich

Cut small ripe peeled tomato through; place slice of cream cheese between sections, cut down through center, place rounded sides together on lettuce leaf, top with a ball of cream cheese, and serve with mayonnaise. (Individual serving.)

Carrot Salad

One cup diced cooked carrots; ½ cup peas; 1 hard-cooked egg; diced onion.

Marinate carrots and serve with mayonnaise dressing.

Cheese and Prune Salad

Slowly cook large prunes. Remove pits, fill with cream cheese, chill well, and serve with mayonnaise.

Peanut and Raisin Salad

Marinate 2 cups seedless raisins. Add ½ cup chopped peanuts, mix, serve on lettuce with mayonnaise.

Apple and Cabbage Salad

One and one-half cups diced apples; 2 cups diced dates; 3 cups shredded cabbage; nutmeats. Mix with mayonnaise and serve.

These are only a very few suggestions. Meats may be combined with vegetables in many ways. Cream cheese, with nutmeats, or onions, or fruits make an excellent combination.

Salads are apt to be the result of a careful survey of your larder. They are not difficult to prepare, and when properly seasoned and crisped are fit food for the gods. Canned vegetables may be used in winter, and fresh food in the summer, so that every season may be salad season.

RESPECT THE FLAG

"One Flag, one land, one heart, one hand, one nation ever more."

The national anniversaries on which the flag should be displayed are Washington's birthday, February 22; Lincoln's birthday, February 12; Memorial Day, May 30; Flag Day, June 14; and Independence Day, July 4. When displayed the flag should always be flown from a staff or mast if possible, and not be raised before sunrise, or left up after sunset. When used as a banner the blue field should float at the right, and if laid on a bier the blue field should be at the head.

When used for decoration, if hung vertically, the blue is at the right; when hung horizontally, the field should be at the left, and the flag should always be above the people when sitting. It should never be used as the whole or part of a costume or to drape a box or table. Bunting in red, white and blue answers this purpose. When carried, the flag should always be upright, and never allowed to touch the ground.

Every man, woman and child should know what to do when the flag passes. If standing or walking we should halt and stand at attention and a man should bare his head. If sitting we should rise and give this simple tribute to "Old Glory."—MRS. GEORGE GRAY.

THE COOK CAN GO TO CHURCH

Shown how at demonstrations in 27 counties, 784 Ohio housewives last year went home and made fireless cookers. Then, through their local bureau organizations, they passed the lesson on to countless other farm women, and in certain Ohio counties fireless cookers are now considered an indispensable piece of kitchen equipment.

Since the cookers can be used to keep cold things cold, as well as to keep hot dishes cooking, their spread is expected to continue throughout the summer. A tinner in Auglaize County tells the agricultural agent there, that he lined 35 outer-containers of home-made cookers there last month.

A farm family in Putnam County has kept account of the amount of kerosene saved on their oil stove. Formerly they used 5 gallons of coal-oil a week. Now, using the cooker for cereals and for Sunday dinner, 5 gallons of oil last two weeks. This housewife has built a cooker which holds two pans. She starts Sunday dinner early and leaves the meat and vegetables in the bottom container, and a pudding or dried fruit in the top container, so that all is ready when the family comes back from church.

Another housewife in this county uses a second compartment in her cooker for the bread-mixer. This retains the bread at the right temperature, and raises it without the bother of shutting windows to keep the room warm enough, or of wrapping the mixer in a blanket.

When anything boils over on the stove, cover it at once with salt; the odor will be killed, and the spilled food can be cleaned up easily.

THREE ONE-PIECE DRESSES OF UNUSUAL STYLE

A PRETTY, two-material house dress is **No. 1656**, with touches of trimming which make it suitable to wear outside the house, too. It's a slip-over, like most of the dresses to-day and in the loose, long waisted style.

No. 1656 comes in sizes 34, 36, 38, 40, 42 and 44 inches bust measure. The 36-inch size takes 2 yards of 36-inch material with 1⅜ yards of 36-inch contrasting material. **Price 12c.**

RATHER more dressy perhaps but still in simple style is **No. 1702**, which like many modern dresses is suitable for either the young girl or mature woman. This model has the advantage, too, of being equally good for the slim or stout figure.

No. 1702 comes in sizes 16 years, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 3⅜ yards of 36-inch material with ¾ yard contrasting material. **Price 12c.**

THEY call this a cape-sleeve dress, because of the odd way in which the material is draped. The diagram shows how the gown is cut from one straight piece of material. It is trimmed with binding and can be so easily made that a beginner need have no fear in trying it.

No. 1721 cuts in sizes 16 years, 36, 38, and 40 inches bust measure. Size 36 requires 2⅞ yards of 36-inch material with 3¾ yards of binding. **Price 12c.**

To Order: Write your name and address plainly, enclose 12 cents in stamps for each pattern ordered and send your order to Fashion Department. Our patterns are seam-allowing and guaranteed to fit perfectly.

Our Summer Fashion Magazine contains over 300 styles, embroidery designs, dressmaking lessons and a special article, "What to Pack Away in Your Vacation Trunk," which advises you what is needed for the mountains, the seashore, automobiling, etc. Order your copy to-day. **Price 10c.**

The Brown Mouse

(*Continued from page* 543)

"Culture," cried Jim, "is the ability to think in terms of life—isn't it?"

"Like Jesse James," suggested the hired man, who was a careful student of the life of that eminent bandit.

There was a storm of laughter at this sally amidst which Jennie wished she had thought of something like that. Jim joined in the laughter at his own expense, but was clearly suffering from argumentative shock.

"That's the best answer I've had on that point, Pete," he said, after the disturbance had subsided. "But if the James boys and the Youngers had had the sort of culture I'm for, they would have been successful stock men and farmers, instead of train-robbers. Take Raymond Simms, for instance. He had all the qualifications of a member of the James gang when he came here. All he needed was a few exasperated associates of his own sort, and a convenient railway with undefended trains running over it. But after a few weeks of real 'culture' under a mighty poor teacher, he's developing into the most enthusiastic farmer I know. That's real culture."

"It's snowing like everything," said Jennie, who faced the window.

"Don't cut your dinner short," said the colonel to Pete, "but I think you'll find the cattle ready to come in out of the storm when you get good and through."

"I think I'll let 'em in now," said Pete, by way of excusing himself. "I expect to put in most of the day from now on getting ready to quit eating. Save some of everything for me, Selma,—I'll be right back!"

"All right, Pete," said Selma.

CHAPTER XI

THE MOUSE ESCAPES

JENNIE played the piano and sang. They all joined in some simple Christmas songs. Mrs. Woodruff and Jim's mother went into other parts of the house on research work connected with their converse on domestic economy. The colonel withdrew for an inspection of the live stock on the eve of the threatened blizzard. And Jim was left alone with Jennie in the front parlor. After the buzz of conversation, they seemed to have nothing to say. Jennie played softly, and looked at nothing, but scrutinized Jim by means of the eyes which women have concealed in their back hair. There was something new in the man—she sensed that. He was more confident, more persuasive, more dynamic. She was used to him only as a static force.

(*Continued next week*)

Aunt Janet Writes About Getting In a Rut

Making Our Homes Better Places to Live In, by Taking Thought of Ourselves and Our Work

WHO was it said that a rut is only a longer and shallower grave?

In any case, it has the faculty of digging itself deeper all the time. The unfortunate woman who, years ago, fell into a comfortable groove, not so deep but that she could easily see over the edges—and of course could turn out if she wanted to—suddenly finds that all she can now see is the high wall of the rut which has completely shut her off from the great world around her.

A man said to me with a sigh the other day (and he is the sort who would loyally defend his wife's every act) "Jennie's an awfully good cook—and of course I know it's hard to plan new things—and then too, she gives me the things she knows I like—"

"What's the matter?" I interrupted. "Meals getting a little monotonous? Same desserts coming around pretty often?"

He looked at me as though I were a mind reader.

"Well—how did you guess it?" he asked. "But since you have, I'll admit I can't look chocolate pudding with whipped cream in the face any more—and it used to be my favorite and there are other things too. But Jennie's a wonderful cook—I didn't mean—"

Learn to Take a Hint

Of course he didn't mean anything else. But I knew that Jennie needed to turn out of that rut, to turn sharply before the sides get any higher. It may be that he'll drop a wistful little hint, or being a "mere man" make it not quite so gentle a one as she might like, and then Jennie's impulse will be to flare up and declare she wishes he had to plan the meals, he'd see then how hard it was. And he used to like her chocolate pudding, and anyhow, she'd only had it two or three times,—not *more* than three times—all this winter. Beware, Jennie! That hint ought to be very useful to you—it's a little like the flick of a whip, perhaps, but if it makes you break into a trot and turn sharply out, your little spurt of energy won't do you a bit of harm, now will it? (No, that metaphor doesn't mean that your husband rides behind and cracks the whip, though it may sound that way. He's your teammate, going right along beside you and if you sprint up a bit, he'll have to break into a trot too. So it will be good for you both. And goodness knows, he has his pet rut too, and next time you'll give the fillup that makes him see how high the sides are getting.)

There is only one way to get a wagon or automobile out of a rut in the road. Get up a good speed and make it by a sharp, quick turn that brings the wheels out at right angles. It's not always easy to manage but anything half-way is worse than useless—it may upset the whole rig.

The man who figures that he can take the rut very gradually, easing the wheels over, finds that the sides just crumble in and his wheels keep slipping back into the deep cut in the road. He'll never get out at that rate. And neither will the woman who plans to make her break to-morrow or the next week or a little at a time.

Does Your System Run You?

It may not be your menus; it may be the entire system with which you run your house. It was a good system once; it enabled you to get your work done more easily, more quickly, and gave you more free time. How did you once use that free time? To read the latest book, to chat comfortably with your neighbor, to take a walk or a trip to town just for a rest and a change. Do you use it now just to cram in more work? Do you feverishly think ahead to the extra things you can accomplish in the once cherished hour or so that had no especially piece of work assigned to it? Then your system is now running you, and all you see is the wall of your rut.

As a matter of fact, a slight rut is not such a bad thing. It helps one to drive steadily and that means greater comfort and speed. No one admires the driver who wobbles all over the road or the scatterbrained woman who dashes from one thing to another and never finishes anything.

But there's a dangerous time, in life ruts especially, when the groove gets a little deeper each day, when each variation from the routine is a little more annoying and when one first finds it difficult to plan for variety in the program of the day and finally resents any interruptions.

Don't Glorify Your Rut

A housewife—and she was a marvellous housekeeper, there's no doubt of that—was once quite displeased with me because I suggested that she drop everything, hop into her little car and drive over to the nearby town, where a really worth while sale was in progress.

"You need the things, the drive will do you good and you can clean the silver or whatever you planned for the day some other time."

She drew herself up proudly.

"I believe that housekeeping is a business and should be run in just as systematic a way as any man's office," she said. "If I did that it would throw out my entire routine for the week and I consider that most unbusiness-like. I have an afternoon a week for shopping and this is not it."

There was no use telling her that no office in the world is so inflexible that it cannot change its system or disregard it if there comes a sudden opportunity to profit by doing so. This woman's husband lost money by her much-vaunted system, because she bought the things later and paid almost twice as much for them. But the sacred rut was undisturbed and that was really what mattered.

Do you try a new dish at least once a week? Have you the moral courage to leave the dishes or the beds because you have a chance to ride into town with a neighbor whom you don't often see? Can you lay the mending by to read the magazine article which your husband and son are discussing with such heat and then to join in the conversation by giving your own opinion in the matter? If you don't want your rut to close in on you, you must first admit that you are in one—which sometimes is more difficult for the "model housekeeper" than to get out of it after the fact is appreciated—and there you must make that sharp turn which will bring you up on a level again with life's broad highway.

Aunt Janet

"WHAT WOULD YOU DO IF?"

"ON which side of the plate should the knife go?" and "Should the hostess be served first?" are but two of many bothersome little questions. Specialists at the state college at Ithaca, say that whether a meal is elaborate or simple, its success often depends on the care with which it is served. The dining room should be swept, dusted, and aired before setting the table.

The table should be covered with a silence cloth, which may consist of table padding, a thin white blanket, or heavy cotton flannel. The center of the table cloth should be placed exactly in the center of the table, the edges falling from nine to twelve inches below the table.

The handles of the knife and the fork are placed with ends one inch from edge of table, knife at the right with sharp edge toward the plate, fork at left, tines turned up. The other pieces to be used first farthest from the plate. The knives and spoons are at right and the forks at the left.

Serve the Hostess, Then the Guests

Place the glass at the tip of the knife. The butter plate is placed at the tip of the fork and a little to the left. The napkin should be placed at the left of the forks with the folds at the upper and left hand sides.

The hostess should be served first. Dishes should be served at the left so the right hand may be used. Everything relating to a course should be removed at its conclusion. Glasses should be filled three-fourths just before the meal is announced. Butter, relishes, etc., may be on the table when the guests are seated.

The knife should never be used to carry food to the mouth. It should be handled with the right hand and held only by the handle. A large portion of food should not be cut off at one time.

The fork is used for carrying all dry foods and many semi-solid foods (salads, vegetables, cheese dishes, etc.) to the mouth. It should be held between the thumb and first finger. Only one kind of food should be taken up on the fork at one time. The knife and fork should not be held in an upright position on the table. When not in use the fork and knife should be placed parallel across the right side of the plate and should be left in this position at the end of the meal. Never lean the point on the plate with the handle resting on the table.

The spoon is used only for food too soft to be easily handled with the fork. It should never be left standing in the cup. After stirring or sipping a beverage, the spoon should be removed and placed on the saucer or, if no saucer is used on the side of the plate. The spoon should be dipped away from one, and food should be sipped from the side.

THE PICTURES ON OUR WALLS

WE hear much about good reading and good music in our homes; but rarely anything about good pictures; yet they are a great factor in home influence. I remember reading of the woman who went to her pastor saying that her oldest son had gone to sea and now the second son wished to go also. She could not understand it and asked if he had any explanation. The pastor asked to see the room where the boys slept and the first thing he observed was a fine painting of a ship on a sunlit sea. "There," said he, "is the influence that calls your boys." Day in and day out, early and late, the picture was silently and unconsciously wooing them.

I know a mother who cut out pictures and pinned them on the wall of the wee boy's playroom and many a lesson of kindness to animals, love of flowers, and appreciation of beauty he learned from them.

Too often our walls are portrait galleries, and our children gaze on dead and gone ancestors whom they never saw. How much better to keep these photographs in the family album, accessible to those who wish to view them and concealed from those who do not.

Then there are the gaudy, high-colored lithographs that have a way of stealing in our collections. When we rearrange our houses, let us inspect our pictures carefully. We need not be artists to discriminate between the trashy and the good. Let the first question be: "is it natural, does it look like real things in life and nature?" and again, "does it harmonize with its surroundings?"

Choose for Simplicity and Beauty

Too many pictures spoil a good effect. Two or three really good pictures are much better than many that are inferior. As I write, I look at the walls of my living room and see a copy of Mona Lisa, one of the Madonna and Child and a pastoral scene in a plain chestnut frame. They are not over crowded and each stands out for our inspection. Special care should be taken in the selection of our frames. We should remember they are simply to contain the picture that we may be able to look at it, so they should be plain and neat, harmonizing with the colors in the picture. The chestnut frames are excellent for many pictures and plain gilt and white frames are adapted for bright water colors for the living room.

We do not need great wealth to procure good pictures. Copies of the masterpieces are obtainable at reasonable prices. If I were to suggest some for the living room I would include The Last Supper and Mona Lisa by Leonardo Da Vinci. The Sistine Madonna by Raphael seems to cast a spell on all who behold it. Pharoah's Horses, The Angelus, Hanging Of The Crane, and all landscape and pastoral scenes which are true to nature are appropriate.—MRS. GEORGE GRAY.

FLYING SUMMER

FAIR June hath lightly run her race.
While running it, her sweet, bright face
Was wet with tears and wreathed in smiles.

Her tears were rain-drops, none the less.
Her smiles, Sunshine and Happiness.
And of them each she's freely given
To make bleak Earth resemble Heaven.

For June, all through her fleeing hours
Hath scattered Joy and Cheer about.
List! Hear the children laugh and shout
A-romping gaily mid her flowers.

So hasten! Let us choose a gift
And gaily on sweet June bestow it.
But quickly! Quickly! Time's adrift!
July will be here 'fore we know it.

HERBERT LOGAN CLEVENGER

"DID YOU EVER TRY?"

ONE of the greatest helps for the busy housewife is the use of an old-fashioned piano or organ stool in the kitchen for work that can be accomplished while sitting as well as standing. It is invaluable when ironing since it can be raised or lowered to any desired height. One can turn to the table or stove more readily than when standing.

* * *

If varnish is spilled on white goods moisten the stain with ammonia, then put on a few drops of turpentine and roll up. In fifteen minutes it can be washed out with warm, soapy water, leaving no stain.

* * *

When there is considerable strain on a button, sew a small button on the under side, pulling the thread through the holes in the smaller button the same time it is pulled through the holes in the larger one. This takes the strain from the cloth.

* * *

Here is a good way to clean wall paper: Take equal parts salt, flour, and vinegar. Stir while cooking until thick enough to work like putty. When cool take a piece in the hand and work as you would dough and rub on wall. It cleans coal smoke and other dirt very well.

* * *

An old shirt makes a good cover for garments that are to be hung in a closet. Cut the shirt off under the arms and sew up to slip over garment. Enough opening is left to slip hanger top through.

* * *

Old wool garments that are to be remodeled should be ripped open and cleaned before storage. The chance for moths to destroy them is not so great.—MRS. W. E. FARVER.

Mother keeps discarded safety razor blades in the sewing basket and uses them for ripping and cutting threads.

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Reviewing the Latest Eastern Markets and Prices

POTATO GROWERS TOUR LONG ISLAND

HERSCHEL H. JONES

SWELTERING heat did not check the enthusiasm of some two hundred people who assembled at Nassau County Court House on the morning of June 20th, for the sixth annual Long Island Potato Tour. Anyone who came to this tour expecting it to be an affair of chiefly local interest, must have been surprised to find it almost international. There were men from Canada, Maine, Vermont, Wisconsin, Washington, D. C., New Jersey, Connecticut, up-State New York and I don't know how many other places outside Long Island.

Even the layman who has not acquired a speaking acquaintance with the 57 varieties of bugs and diseases that do their best to make life difficult for the potato, could get a lot out of this tour. The personal contact and exchange of information between growers, scientists, seed stock producers, dealers and educators was the outstanding accomplishment. It was a satisfaction to see the extent to which New Jersey and New York were cooperating all through the program. New Jersey's potato tour was held the first two days in the week and many of the men came on over from New Jersey to the Island for the following three days.

Attention was centered on control of insects and diseases and improvement. The first day's trip covered farms chiefly in Nassau County, where potato seed demonstrations were being conducted. After examination of the plots there were talks by various experts, with S. H. Weeks, presiding.

The Thursday tour started at Riverhead and went over to the Southside in vicinity of Southampton, Bridgehampton and Watermill, visiting the farms of L. E. Downs, H. Morgan Topping, J. C. Corwith and others. Potato marketing was discussed in the evening. Friday's trip started at Riverhead, and covered other Suffolk County farms including those of H. R. Talmadge of Riverhead, H. J. Reeve, Mattituck, Rufus W. Tuthill, Orient and T. C. Fox, Southhold.

The potato fields began to show the need of rain seriously last week. The Cobbler crop in Nassau County looked fine but another ten days of drought would do great damage.

SMALL FRUITS MORE PLENTIFUL

Increased receipts of strawberries tended to keep prices down last week. More than half the total supply came from New Jersey, with Delaware second, and New York fourth. The demand was comparatively light and the market continued dull and weak. Hudson Valley berries sold June 20th, best at 18 @ 25c.

Cherries from Hudson Valley sections were considerably more plentiful, but mostly of ordinary quality. Following were wholesale prices, per quart, June 20: red sweet, 16@20c; white sweet, best, 17 @ 18c; ordinary, 12½ @15c; black sweet, 20 @22c; red sour, best, 16@20c.

Heavier receipts of gooseberries with a light demand caused a weak market for them last week. Four quart baskets, sold June 20, at 75 to 85c for large; 65 @70c medium; 50@60c for small.

LONG ISLAND CABBAGE IN

Long Island Cabbage made its first appearance for the season in the New York farmers markets last week and sold at from 8 to 12c per head. Crates of New Jersey cabbage of about 100-lbs., sold at $3.25 to $3.50 per crate.

Supplies of green peas from nearby sections increased. Fancy green peas sold readily at firm prices reaching as high as $3.50@$4 per bu. bag for best toward the end of the week and some fancy at $4.25 to $4.50.

Fancy, well headed lettuce advanced with some sales at $2 per 32 qt. crate. Orange County lettuce sold June 21 at $1.50 to $2.75 per crate of 2 doz. heads. Following are wholesale prices of other nearby vegetables as sold in the farmers markets: ASPARAGUS—per doz. bunches, white and green, prime, best $2.50 @ $3, fancy $3.25 @$3.50, culls $1 @ $1.25; BEETS—per bunch 5 @ 6c; CAULIFLOWER—per slat bbl, best $2.75 @ $3, fancy $3.25 @ $3.50, fair $2.50, No. 2's $1.25@$1.50; CARROTS—per bunch 4 @ 5c; ONIONS—spring per bunch 4 @ 5c; RADISHES — per bunch, red tip 3 @ 3½c, white tip 2½ @ 3c, white radishes 3 @ 4c, black radishes 4 @ 6c; RHUBARB — per bunch 2 @ 3c; SPINACH—per crate (32 qt.) best $1.25 @$1.50, ordinary $1.

Out of 911 carloads of potatoes received at New York in the week ending June 16, 738 came from North and South Carolina, and only four from New York State, with 49 from Maine.

EGG RECEIPTS FALL OFF

Receipts of nearby eggs in the New York market fell off slightly last week and the average quality was very much poorer. There is still a surplus of ordinary grades of eggs and a range of 25 @ 30c covered the bulk of the sales during the week. Quantities of fairly good but not fancy nearby eggs were moved out at 27 to 28c per dozen. Really fancy, large size, full-bodied light yolk, nearby whites or browns are scarce and will sell quickly at top quotations. Discriminating buyers had to shop around last week to fill their requirements with fancy eggs.

Production has apparently been affected by the hot weather. If such weather continues it is likely to bring a steadily stronger market and advancing prices for the top grade of fancy eggs, such as the best Vineland marks. The shipper who will gather and handle his eggs so as to cause a minimum of heating and deterioration will be rewarded. It is well to remember that a case of eggs can deteriorate more in one day if exposed to heat than in several months in cold storage. Keep them in a cool, dry place.

BROILERS IN FREE SUPPLY

Due to plentiful receipts of broilers, the market as a whole had a somewhat easier tendency last week. However, there is a ready demand for fancy stock, little of which is arriving. The following were wholesale prices on broilers June 21 — colored, large, 48 @ 50c; colored, small, 42 @ 43c; white leghorn, fancy, large, 40c; small, 30@35c.

The extreme warm weather had a decided effect on the consumption of fowls, and trading in the wholesale market was dull. Fancy fowls brought from 23 to 24c per lb.

BUTTER MARKET ACTIVE

After holding off for weeks in expectation of a decline in wholesale butter prices, buyers finally began to buy in earnest last week for storage purposes. They have little time left in which to get their supplies in under the June cold storage mark, June butter being considered the best. Over 2,000,000 lbs., were put away last week.

Prices continued very firm, with 39¼c being paid quite generally for creamery extras. It is now estimated that the average price of extras in the month of June this year will be around 39c compared with 36.65c average for June, 1922.

CHEESE PRICES "PYRAMID"

The New York wholesale cheese market affords a good example at present of what is commonly called "Pyramiding of prices", in trade parlance. Instead of going down as might be expected at this time of the year, cheese wholesale prices have held very steady right into the flush season and have even tended to advance. In the last week State whole milk flats, fresh, average run advanced to 25 @ 25¼c per lb., which was ¼c more than a week before. Consumption of cheese has not shown any phenominal increase. The explanation is not apparent in the statistics of holdings or production. It seems that the real cause is that this year, a considerable number of dealers in New York sought to cover their year's needs by contracts with up-State plants. There was a good deal of competition among buyers to get their supplies and premiums were offered at ¾c to as high as 1¼c, or more, above the current quotation in New York City for average run flats. The result is that all these supplies that would ordinarily come into the market at this time of year have been cut off. The buyers who are not covered by a contract have to buy in the market and tend to boost the market up. This, of course, means that the contract men have to pay just that much more and so on, the prices are piled or pyramided up until the point is reached where there can be no possible speculative profit.

This happens to be a case where the farmer and the dairyman gains by an inflation of prices. The leaders in the cheese market are thinking pretty hard about how they are going to escape getting squeezed by their own economic forces. There is talk of trying to get the old up-State cheese boards revived, also of diverting trade to Wisconsin cheese.

HAY PRICES FLUCTUATE

The old story of see-sawing hay prices describes the situation in the wholesale hay market last week. Heavier receipts brought prices down. Then under the permit system, shipments will be cut off until the market cleans up accumulations. There was an over-supply of lower grades, especially the type of hay received by barge. Dark clover is hard to sell at any price. The crop seems generally to be poor. Producers of hay for market are reminded that under the new Federal grading system, greenness of color is recognized as the primary index of quality, and that early cutting has more than anything else to do with getting a grade of hay with the highest market and feed value.

DRESSED CALF MARKET DULL

Although fresh receipts of country dressed calves were rather light last week, the trade is slow and the market is not clearing. There are very few good little veals available, as usual at this time of year, and there is some call for them. Sales on June 21 were 17c for best quality, 16c for choice and poorer grades ranged down to about 10c and even lower.

Offerings of live calves were so light that prices were fairly steady and unchanged, with best veals bringing $12 @ $12.50.

American Agriculturist Radio Market Service

ONE of the chief aims of American Agriculturist is to aid our people with their marketing problems. On this page we have been furnishing for months the most accurate and the most valuable market page published. We have now extended this market service by making cooperative arrangements with the New York State Department of Farms and Markets and the American Telephone and Telegraph Company to broadcast from the WEAF station (492 meter wave length) the very latest market reports at 10:50 A. M. every day in the week except Saturday, Sunday and Monday.

If you have a radio be sure to tune in and have paper and pencil ready to take down these prices. If you don't have a radio, ask your neighbor who does have one for the information. We think if you use this service it will save you hundreds of dollars during the season. Blanks for taking down the prices will be furnished free on application to American Agriculturist, 461 4th Avenue, New York.

Quotations From Eastern Markets

The following are the prices at which farm products of special interest to eastern farmers sold on June 21:

	New York	Buffalo	Phila.
Eggs, Nearbys (cents per dozen)			
New Jersey hennery whites uncandled, extras	38@40		
Other hennery whites, extras	37		
Extra firsts	30@33	27@28	27
Firsts	28@29		24
Gathered, whites, first to extra firsts	28@32		
Lower grades	25@27½		
Hennery browns, extras	33@35		
Gathered browns and mixed colors, extras	28@32	25@26	
Pullets No. 1	25@28		
Butter (cents per pound)			
Creamery (salted) high score	39½@40	42@43	
Extra (92 score)	38¾@39	40@41	40
State dairy (salted), finest	38½	38@39	
Good to prime	37@38	32@37	
Hay and Straw, Large Bales (per ton)	U. S. Grades	Old Grade Standards	
Timothy No. 2	$24@25	$19@20	$21@22
Timothy No. 3	21@23		19@20
Timothy Sample	14@19		
Fancy light clover mixed	25@26		21@22
Alfalfa, second cutting	29@30		
Oat straw No. 1	10		15
Live Poultry, Express Lots (cents per lb.)			
Fowls, colored fancy, heavy	23@24	23@24	20@22
Fowls, leghorns and poor		21@22	
Broilers, colored fancy	47@48	40	35@55
Broilers, leghorn	32@40	30	28@34
Live Stock (cents per pound)			
Calves, good to medium	10@11	11½@12	
Bulls, common to good	3@4	4@6	
Lambs, common to good	10@14	12@14	
Sheep, common to good ewes	2½@4½	3½@5½	
Hogs, Yorkers	7¾@8¼	8@8½	

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Pay when received, pipe and recipe free.
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Chester and Yorkshire cross, Berkshire and Yorkshire cross, 6 to 7 weeks old, $6.00 each. 8 to 9 weeks old, $6.50 each.
15 Duroc and Berkshire cross. Fine feeders, 8 to 10 weeks old, $7.00 each.
Pure Bred Yorkshires, 6 to 8 weeks old, $8.00 each. All pigs bred from Big Type stock; each feeders; fast growers and O. K. in every way. Shipped C. O. D. on approval.
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Yorkshire and Chester White Cross, and Chester and Berksbire Cross, all large, growthy pigs: 6 to 7 weeks old, $5.75 each; 7 to 8 weeks old, $6 each; 8 to 9 weeks old, $6.50 each. 15 Pure Bred Yorkshire Sows, 7 to 8 weeks, $7 each; 20 Pure Chester White Pigs, 6 to 7 weeks old, $7 each, and 10 Berkshire and Duroc Cross, 8 to 9 weeks old, $6.50 each. These are all good pigs, bred from the best of stock. I will ship any part of the above lots to you on approval, C. O. D.
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League Reports Big Year's Work

(*Continued from page* 537)

of the resolutions were either local in character or pertained to matters which should come before the Board of Directors, or before some of the departments of the association, and were referred to them.

The following resolutions were adopted by the Resolutions Committee:

Endorse the Pool

Resolved, That at the end of two years' operation of the Dairymen's League Cooperative Association, Inc., we, the delegates in annual meeting assembled, do again affirm our unalterable belief in the soundness of the pooling plan,

Whereas, The Dairymen's League has been influential in assisting and forming the G. L. F. Exchange, we wish to call the attention of our members to the benefits and savings it has enabled the dairy farmers to effect in lowering their costs of production,

Be it resolved, That we recommend that our members give their hearty purchasing support to the efforts of the G. L. F. Exchange.

Whereas, Experience has shown that subdistrict meetings are an important link in connecting the individual producer with his parent association; and,

Whereas, It has been found that the subdistrict organization at present is underfinanced,

Be it therefore resolved, That there be a deduction of .001 in addition to the present .002 deduction for the financing of the subdistricts, and that this .001 be paid direct to the subdistrict organization.

Whereas, The Canadian Parliament has recently passed a law prohibiting the manufacture, sale, and importation of oleomargarine and other substitutes for butter in the Dominion of Canada, in the interest of the public health, agriculture, and general welfare,

Resolved, That we congratulate our cousins on the north on their wisdom and foresight, and send greetings, and,

Urge National Legislation

Resolved, That we memorialize Congress in behalf of similar legislation in this country, believing it to be in the interest of the public health, agriculture, and general welfare, upon which depend the happiness and prosperity of all nations; and,

Resolved, That we urge the prohibition of the manufacture, sale, and importation of oleomargarine and kindred products in the United States of America.

The Dairymen's League Cooperative Association, Inc., is one of the largest cooperative associations in the world. It came into being and has operated through two years of the greatest economic depression this country has ever known. It has weathered every storm and is to-day sounder in every way than it has been before. It took men of absolute honesty, of the highest integrity, and of great ability to accomplish this result.

Be it therefore resolved, That we, the representatives of 70,000 producers, take this opportunity of commending the present administration and of expressing our utmost confidence in them and in the many accomplishments they have made in the past, especially of the advertising and of the marketing of our League products, and in wishing them Godspeed and in giving them our heartiest active helpful support for the coming year.

RAILROADS AND FARMERS' CO-OPERATIVES MEET TO SOLVE MUTUAL PROBLEMS

E. C. WEATHERBY

Representing the purchasing power of approximately 25,000 cars of farm supplies per year, the managers of eight farm cooperative societies from the Northern States, east of the Mississippi, met on June 16 in Cleveland, with ten railroads, whose lines extend through the territory where these cooperatives function. The meeting was held to work out plans that would mean greater dispatch for carload shipments of farm supplies from point of manufacture to the point of consumption.

There were present, representing farmers, managers of cooperative associations who buy farm supplies cooperatively in Pennsylvania, Maryland, West Virginia, Ohio, Michigan, Indiana, New York and the New England States. H. E. Babcock, general manager of the Grange League Federation Exchange, represented New York, and Howard W. Selby, manager of the Eastern States Farmers' Exchange, represented that organization. The railroads were represented by their traffic managers or executives in charge of freight.

Among the roads present were the Boston and Maine, Boston and Albany, Baltimore and Ohio, New York Central, Grand Trunk, the Big Four, the Nickelplate, Canadian Pacific, the Pennsylvania, the Cleveland-Cincinnati and the Chicago and St. Lawrence.

Second Big Stop

This conference at Cleveland marks the second big step in effecting savings for Eastern dairymen. The first step was the conference of feeding experts from the State colleges of the East at Springfield about a year ago when standardized formulas for milk and feeding rations were suggested to the cooperative by the college authorities. The Cleveland meeting brought out that it was possible to move solid trainloads of feed with considerably greater dispatch than has been the case in past. There is nothing new in the process, for the big packing houses of Chicago have been following this procedure for some time.

In commenting on the conference, one of the railroad officials said: "This conference has given us railroad men a better understanding of the farmer's problem as it relates to the cooperative purchase of feeds and other farm supplies. It will be possible for us to serve it better through the cooperative associations that are represented here. It is, of course, the desire of railroads to have as many of its freight cars moving as is possible. The car on the siding is not earning money for us or for the shipper. The greatest mileage per day per car is the desire of every railroad.

The idea of solid trainload shipments will probably be followed in the Eastern States where a big feed pool is now being conducted.

After transportation problems were disposed of, the cooperative association met as a committee relative to holding an exhibit in the World's Dairy Congress and the National Dairy Show.

COOLEY APPOINTED NEW JERSEY FARM BUREAU SECRETARY

L. A. Cooley, Farm Demonstrator of Gloucester County, N. J., becomes Secretary of the New Jersey State Federation of County Boards of Agriculture, which is the New Jersey unit of the American Farm Bureau Federation, on July 1. He follows Dr. Frank App as General Secretary, and will promote the activities of the New Jersey Farm Bureau and further develop cooperative organization and marketing among business farmers in the State along farm bureau lines.

Pressure of other interests has necessitated release of the duties as General Secretary, which Dr. App has held, for the last two and one-half years. However, Dr. App will retain his connection as treasurer, an office to which he was elected this last January.

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